

THE Nation's Schools

A P R I L

The Junior High School Is a Poor Investment

Elementary Schools Changed Little in the Fifties

Outside Tests Can Endanger the Curriculum

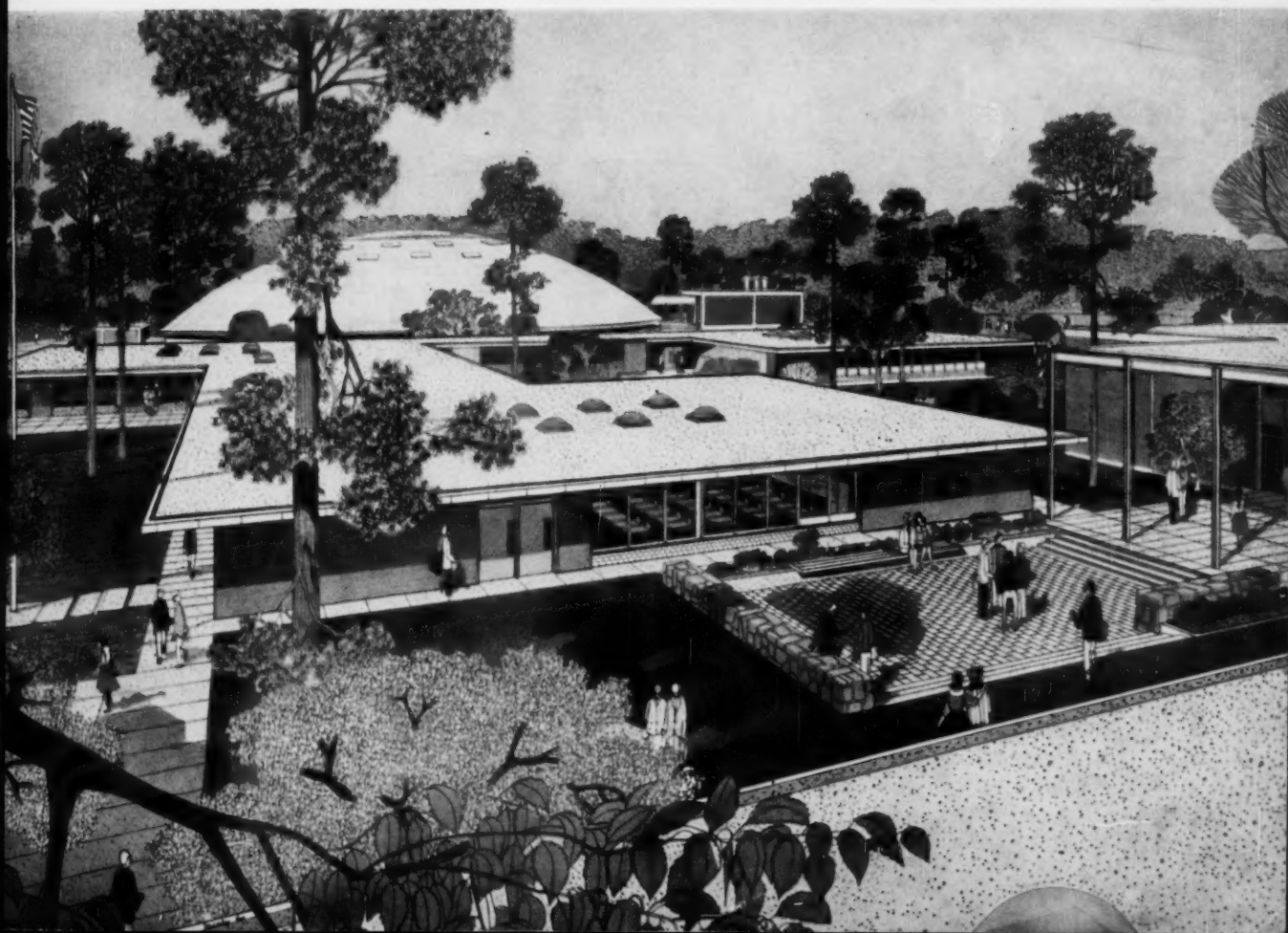
Some Factors That Affect Future Schoolhouse Planning

When Is Corporate Punishment Lawful?

Secondary-School Principals Convention

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SECONDARY SCHOOL OF THE FUTURE? Teacher-teams will staff this new high school at Wayland, Mass. Note the fieldhouse geodesic dome. (Page 83)



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Fig. 1

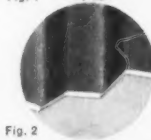


Fig. 2

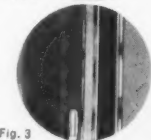
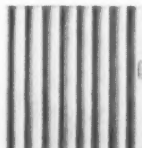


Fig. 3

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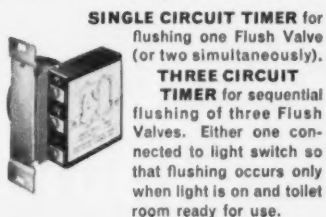
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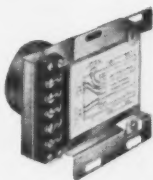
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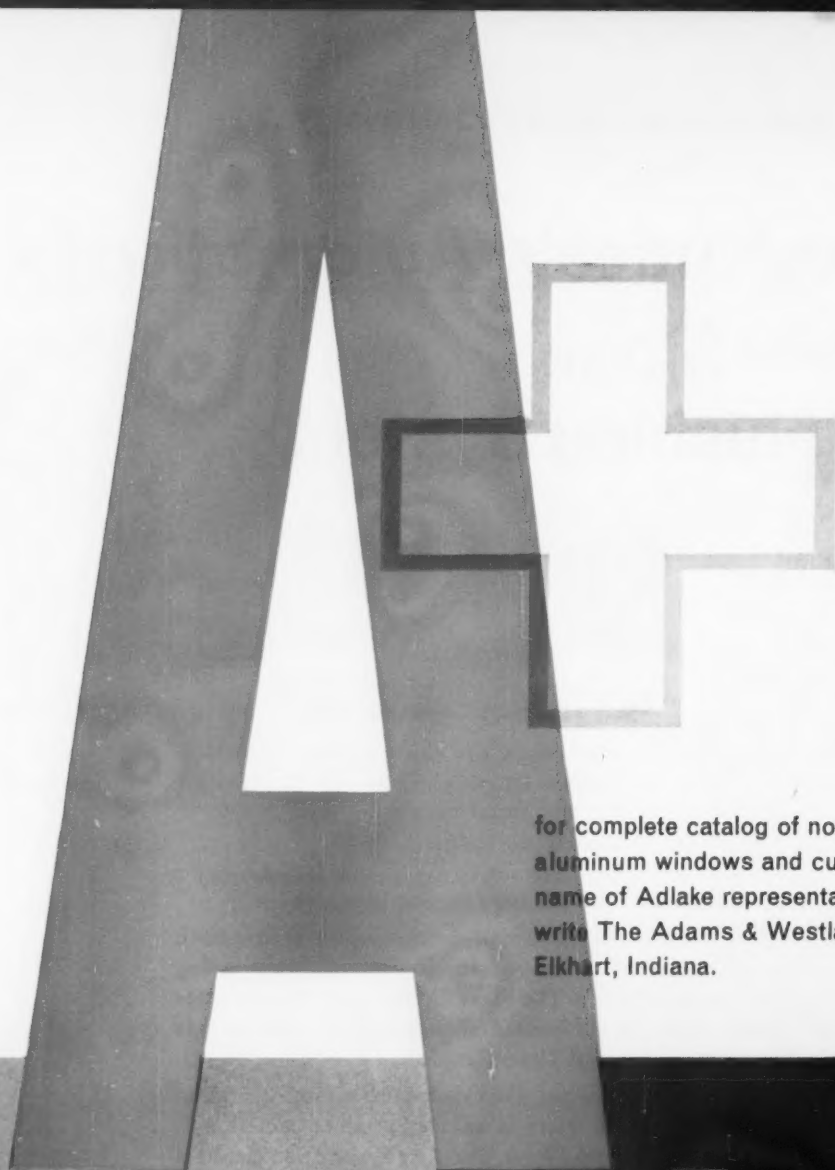
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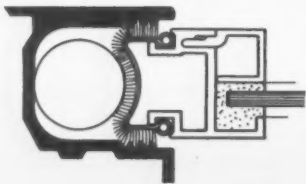
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THE *Nation's Schools*

THE MAGAZINE OF BETTER SCHOOL ADMINISTRATION

APRIL 1960

Elementary Schools Changed Little in the Fifties

71 Harold G. Shane

Administrators have not been swept off their feet by a decade of widespread criticism of education. A recent study of elementary school practices shows little change in such aspects as curriculum, grading and competition.

Some Factors That Affect Future Schoolhouse Planning

74 Harold B. Gores
and
Arthur H. Rice

In an interview with the Editor, E.F.L. President Gores discusses trends and research that should influence schoolhouse design. He comments on implications of projects sponsored by E.F.L.

The Junior High School Is a Poor Investment

78 J. H. Hull

Problems pertinent to departmentalized classrooms, as found in the junior high school, are compared to those of self-contained classrooms. After considering the pros and cons, Torrance, Calif., is using a K-8-4 plan, with K-8 self-contained classrooms.

Conant Looks at the Junior High School

82 James B. Conant

Currently conducting a study of junior high schools, Dr. Conant is convinced that the eighth grade should be departmentalized. Published here is the author's preliminary report as he presented it to two group sessions at the recent A.A.S.A. convention.

Secondary Principals 'Reinforced' for Leadership

92 Leo E. Buehring

About 4000 secondary-school principals were told to exert their leadership in school decisions at the 44th annual convention of the National Association of Secondary-School Principals, meeting in Portland from February 27 through March 2.

When Is Corporal Punishment Lawful?

100 Lee O. Garber

Twelve aspects of corporal punishment are explained as they relate to the authority of the legislature, school board, and teacher. Corporal punishment also is discussed in relation to "reasonableness," parental restrictions, and community attitudes.

Vol. 65 No. 4

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THE Nation's Schools

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Planned Variability in High School Design 83

Wayland (Mass.) High School, now under construction, has been designed for "planned variability" so that all available space will accommodate large or small student groups. It has four academic centers, each staffed by a teacher team.

E. Anderson
and
J. C. Harkness

SCHOOL LUNCH

Why Nineteen States Veto Flavored Milk 94

At least 19 states prohibit reimbursement of federal funds for flavored milk served in school lunches. Evidence against serving flavored milk and comments on state nonreimbursement policies are presented.

Mary deGarmo
Bryan

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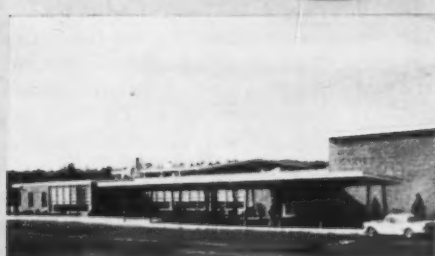
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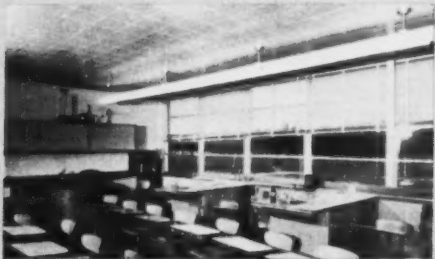
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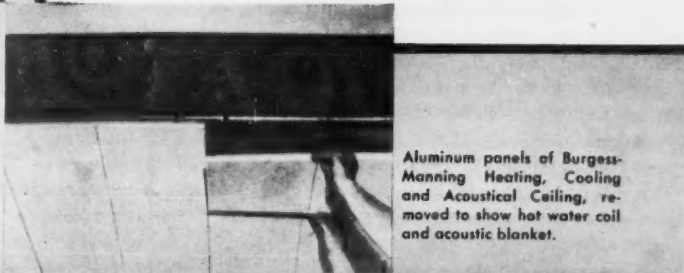
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ADMINISTRATOR'S

CLINIC

By CALVIN GRIEDER
Professor of School Administration
University of Colorado

One Loyalty Oath Could Be Used on All Occasions

WHEN President Eisenhower expressed himself in December as being in sympathy with the position taken by Harvard, Yale and Princeton universities, Reed College, and other institutions in opposing the loyalty oath and disclaimer affidavit provisions of the National Defense Education Act, he made an interesting suggestion. In effect, he was reported as saying that the general oath of citizenship should suffice to cover all situations, and that no additional or supplementary oaths or affirmations of loyalty should be required.

The President may have had reference to the Pledge of Allegiance, which millions repeat every day. Under certain conditions, mostly taking place in the relation of nationals to their own and other governments, the Pledge (as well as similar professions in other nations) is interpreted as tantamount to an oath of affirmation of loyalty. But it is not quite the same thing as a general oath of citizenship sworn at the time one acquires voting rights. In fact, we in the United States do not have such an oath except for aliens who become naturalized.

Young men and women, who at the time they reach the age of discretion are endowed with the full rights and duties of citizenship, sort of sneak over that important threshold. No special note is taken of it, except for a birthday celebration in some families. (Incidentally, in some other lands the "Twenty-One Party" is a real whinging, usually only a social affair, but having some overtones of the serious side of coming of age.)

The citizens of this great nation in reality take their citizenship rather lightly, unless they get into trouble abroad and call on Uncle Sam for help.

Wouldn't it be a good idea to adapt a plan followed in ancient Athens where an impressive ceremony was made of an oath administered to the group who reached the voting age each year?

In Athens the ephebic oath was recited by all young men as they assumed the duties of citizenship. This ceremony took place when they were about 20 years old, after two years of training, partly military and partly civic or political. I looked up the wording of the ephebic oath in the excellent work, "Schools of Hellas" by Kenneth J. Freeman (Macmillan), and here it is:

"I will not disgrace my sacred weapons nor desert the comrade who is placed by my side. I will fight for things holy and profane [that is, spiritual and temporal], whether I am alone or with others. I will hand on my fatherland greater and better than I found it. I will hearken to the magistrates, and obey the existing laws and those hereafter established by the people. I will not consent unto anyone who destroys or disobeys the constitution. I will honor the temples and the religion, which my forefathers established. So help me Aglauros, Ennalios, Ares, Zeus, Thallo, Auxo, Hegemone."

I suggest that an oath or affirmation like this, in a modernized version attuned to our time and culture, would be quite fitting as a requirement for our young men and women to take upon reaching voting age. Every community would plan an annual ceremony for this purpose, making it dignified and impressive. Thereafter no further oaths or affirmations would be required as conditions of employment, for receiving grants or loans of public money, and so on.

'Sense of Humor' Is Basic to an Administrator's Job

At the vortex of conflicting, competing and sometimes cooperating interests and surrounded by a sea of apathy, the position of school superintendent uniquely demands a sense of humor. This attribute is so important, I believe, that some day it will be given careful attention and assessment in the selection of candidates for preparation and for jobs.

A sense of humor is important for everybody, of course, because it helps one maintain a better perspective and balance in his life and work. It helps one accept the bad with the good but not be borne to the ground by it.

One of the shrewdest political commentators of the day, William S. White, Washington correspondent for *Harper's* magazine, devoted three whole pages in his February dispatch to "Humor in Politics." In this clever analysis he sizes up and illustrates the "Humor Quotient" of a dozen or more political leaders since Wilson, including the leading aspirants for the 1960 presidential nomination. Very interesting reading it is, too.

What we need, Mr. White says, and this gives a clue to what he means by a sense of humor, "is not the wise-crack, the boffo, the yak, or any of the other frantically contrived versions of humor produced by the laughter industry of Broadway and Hollywood, but "a grace of speech and a human style, whether colloquial or polished, overlying . . . a sense of proportion [italics mine]. We need the laughter of men properly respectful — and afraid — of the gods, but jesting with them all the same."

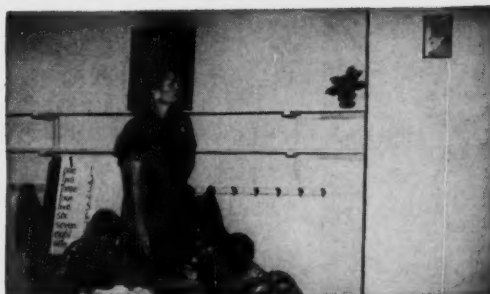
Mr. White says that while this is thought of as a humorous or humor loving country, it has not for many years shown much humor.

Malcolm Muggeridge, the celebrated former editor of *Punch*, made similar observations in his article, "America Needs a Punch" (*Esquire*, April 1958). Of particular interest to us in educational administration are these gems: "Self-importance is funny," Mr. Muggeridge explains, "because everyone really knows in his heart that, whatever else is conceivable, it is quite outside the bounds of possibility that one mortal man should be inherently more important than another." Sort of deflates the ego, what?

"The enemy of humor is fear," Mr. Muggeridge concludes, "and this, alas,



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is an age of fear. Fear requires conformism. . . . In totalitarian countries humor is virtually abolished, and only exists at all as a kind of Maquis or resistance movement." Both Britain and the U.S. are, he is convinced, in the process of becoming conformist societies, and "that is why their stock of laughter is noticeably diminishing."

One may well ask how a superintendent of schools can feel humorous about the plethora of grave conditions and problems surrounding and confronting those who manage public education.

Just a few of these conditions and problems are: shortage of good teachers; problems of academic freedom, loyalty oaths, and the like; desegregation; curriculum improvement; inadequate finances; Hyman Rickover; classroom shortages; continued denial of federal aid; demands for higher salaries; foreign languages in elementary schools; education of the gifted, the average, and the retarded; adult education; custody of "the trainables"; overemphasis of athletics and other activities; sports writers, and — Add some of your own.

No, these are not subjects that one can feel funny about, but being excessively solemn about them isn't going to help, either. A man can take his work, his problems, even perhaps his successes, seriously, without taking himself too seriously. That is the main point.

Look around. The more pompous, solemn and self-important a man is, the more insecure he is. That is a form of fear, and a sense of humor is needed to combat it. ■

Curriculum Leader Joins Editorial Advisory Board

CHICAGO.—Joining the editorial advisory board of *The Nation's Schools* this month is Robert S. Gilchrist, who has been superintendent of public schools at University City, Mo., since August of 1955. Dr. Gilchrist was assistant superintendent in charge of instruction during those stormy days in Pasadena, Calif., and he continued there until 1955. Instruction also was his special field when he was associate superintendent in Minneapolis (1948-49). For five

years (1941-46) he was director of the university school and professor of education at Ohio State University. His career includes 12 years as a principal in both elementary and secondary schools in Missouri, New Jersey, and Colorado. It was also in Colorado that he was head of the Big Bend Training School for the Colorado State College of Education (1928-30) and started his career as a teacher at Severance (1922-23). An earlier teaching experience was in Webster Groves, Mo., near where he now resides.

Dr. Gilchrist's leadership in the curriculum field has been recognized by the Association for Supervision and Curriculum Development, for which he was president in 1956 and chairman of the yearbook committee in 1954. In California, he was president of the Association of School Supervisors in 1955, and in Colorado he was president of the Secondary School Principals Association in 1938-40 and president of the Eastern division of the Colorado Teachers Association in 1939. Currently, he is president of the Vocational Counseling Service of Greater St. Louis and chairman of the Cooperating School Districts of the St. Louis Suburban District. Boy scouts, community planning, Rotary Club, and mental health programs have been some of his other official interests.

Those who have met Bob find it easy to believe that he was captain of his football team and a member of the wrestling team at Colorado State College of Education. Throughout those college years in Colorado he financed his education by driving a city bus. His doctorate is from New York University.

Dr. Gilchrist is a native of Jewell County, Kansas, is married, and has three children. His high school days were in Superior, Neb., and Albuquerque, N.M. Summer school students have enrolled in his classes at a dozen colleges and universities throughout the country. — A.H.R.



Robert S. Gilchrist

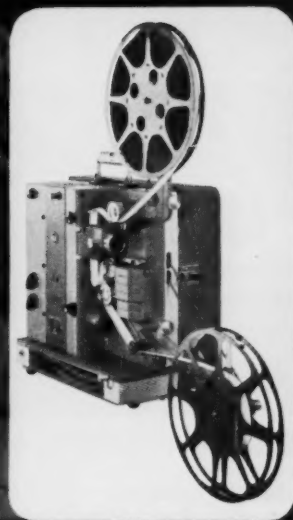
LETTERS TO THE EDITOR

Where Can They Smoke?

I read with great interest your recent opinion poll on providing smoking areas for high school students (*The Nation's Schools*, February 1960). Thirteen per cent of the administrators responding

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Letters to the Editor

(Continued From Page 8)

favored providing such areas in high schools. Your story, however, makes no mention of whether there are, at present, any high schools which do provide such facilities and such rules. Are there? —A READER.

EDITOR: Yes. Five administrators, three of them from Arkansas, reported having smoking areas in their high schools. "Our board has a policy of providing an area for high school boys to smoke with parent permission. I have op-

posed this policy," complained one Arkansan, while another said simply, "We have a large can where students can deposit butts." In one Tennessee district also, the male sex has its privileges: "We set a time and place. After lunch we give boys only five minutes to smoke." This administrator believed providing these five minutes a day discourages "sneak smokes." A New Mexico superintendent wouldn't bend backward too far: "We send them to an outside area of the school. Our climate permits this. In less mild climates, I suppose a fireproof room, not too comfortably appointed, would suffice!"

READER OPINION

Merit Rating Needs More Study

Taxpayers have said plaintively that the prevailing type of objective salary schedule for teachers disregards the merit factor. Admittedly, salaries of teachers should be related as directly as possible to quality of teaching. No teacher should want to receive a larger salary than he merits.

Gearing of teacher pay more directly to quality teaching would tend to stimulate better teaching and to eliminate poor teaching.

Lay adults and students make a distinction between good and poor teaching, and their evaluation can be heard at the curbstone level regularly. As effective as some informal lay evaluation may be, it lacks further refinement on the anvil before having validity. Yet, boards of education and school administrators hesitate to rate teachers.

The former rationalization that no workable measuring device for teacher merit was obtainable should be reexamined. The fact that the "Solomons of the profession" have not produced a universal yardstick for the measurement of teaching merit constitutes no justification for an "It can't be done" attitude. The teaching profession should get out of swaddling clothes on this question through continual vigilant study.

Astute laymen know that efficient persons tend to relax and become less efficient when too much snugness and security are provided. They know that automatic salary increments, flat salary raises, and objective salary schedules afford both security for capable teachers and shelter for inefficient ones. Some laymen might continue supporting the schools more cheerfully if a higher degree of correlation could be shown between quality of teaching service and position of the individual teacher on the salary schedule of the district.

Would it be better to experiment with the merit factor, at the risk of making mistakes, than continue disregarding it with the certainty of making them? The profession should be seeking answers to questions about the merit factor in salary schedules before some unsatisfactory proposals come from the outside. — LOYAL V. NORMAN, superintendent of schools, Elko County School District, Elko, Nev.

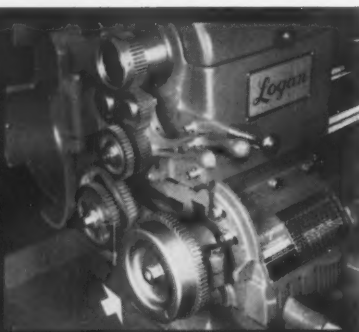
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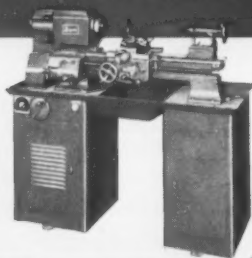
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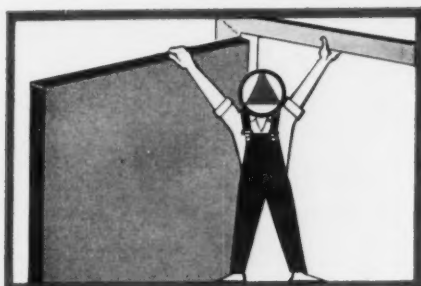
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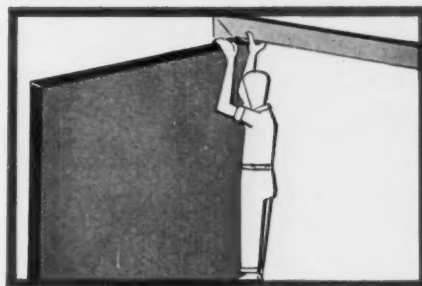
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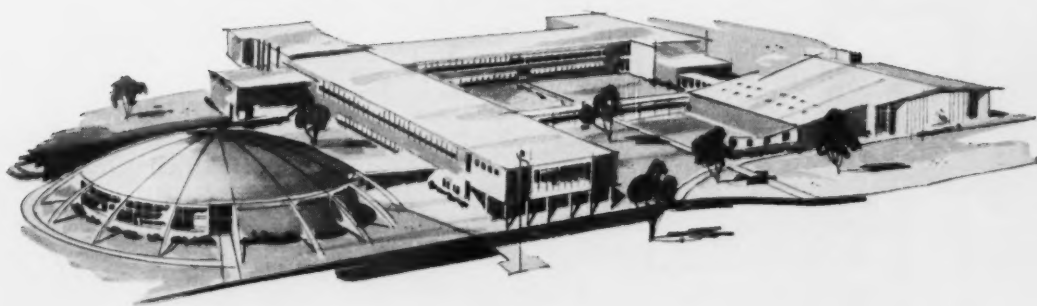
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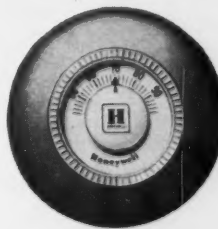
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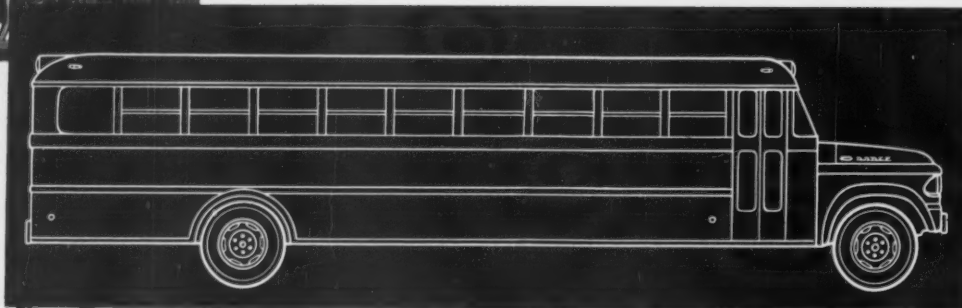
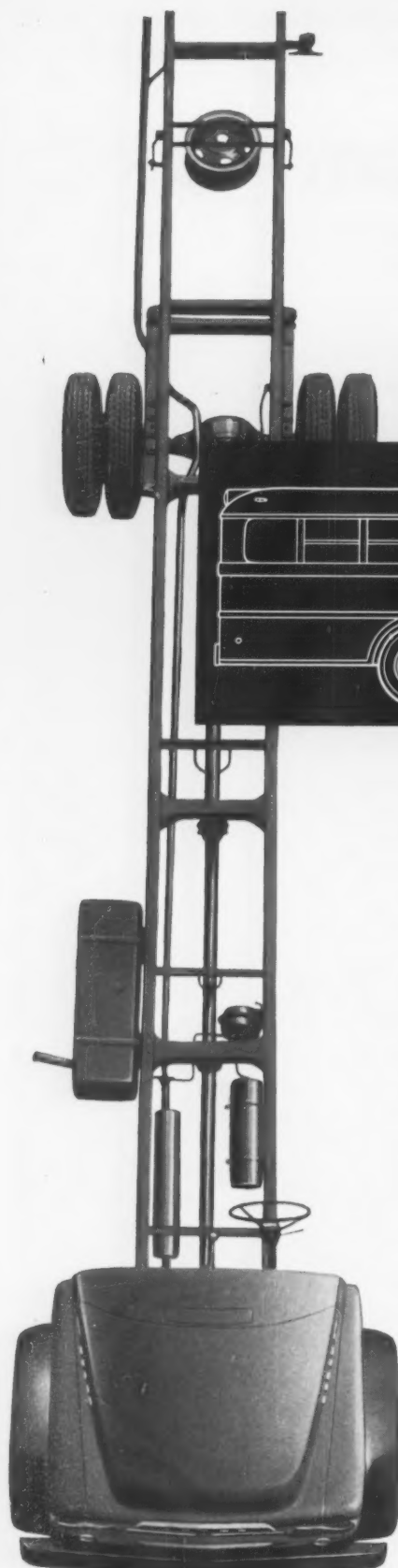
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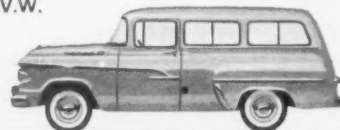
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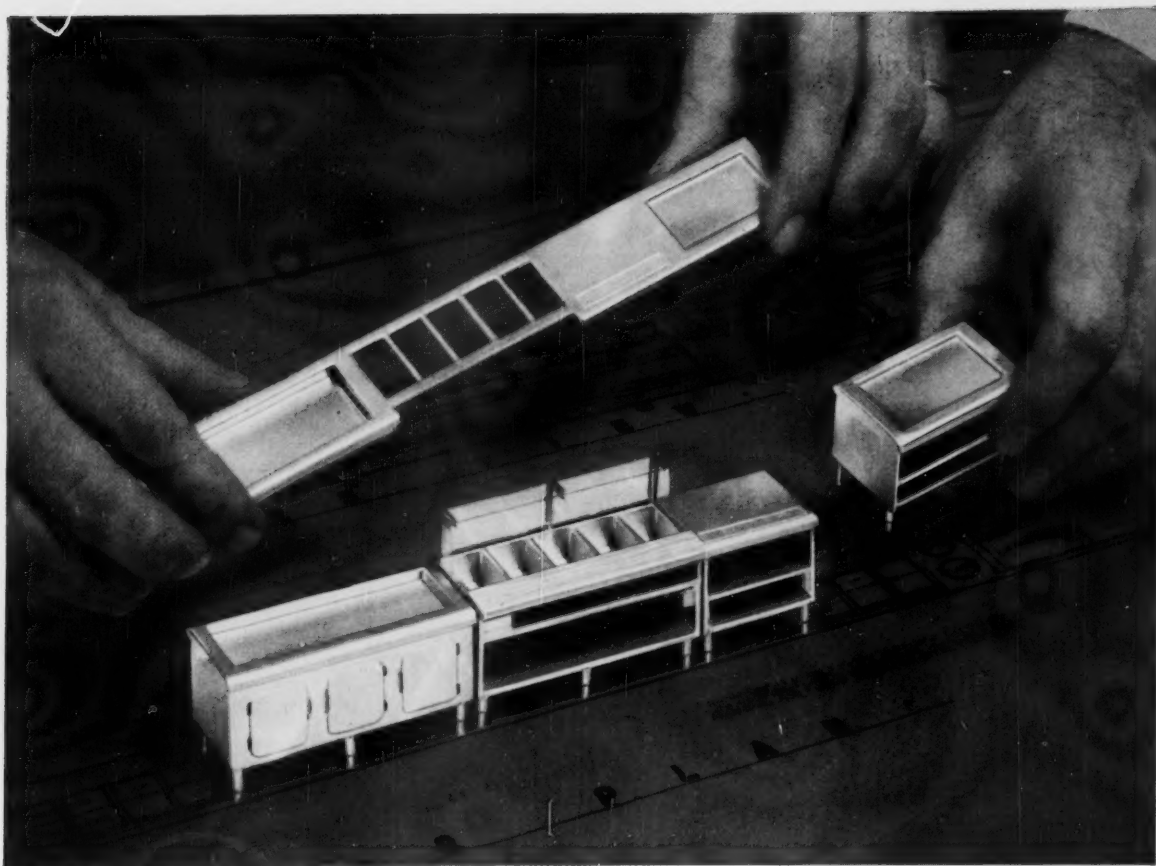
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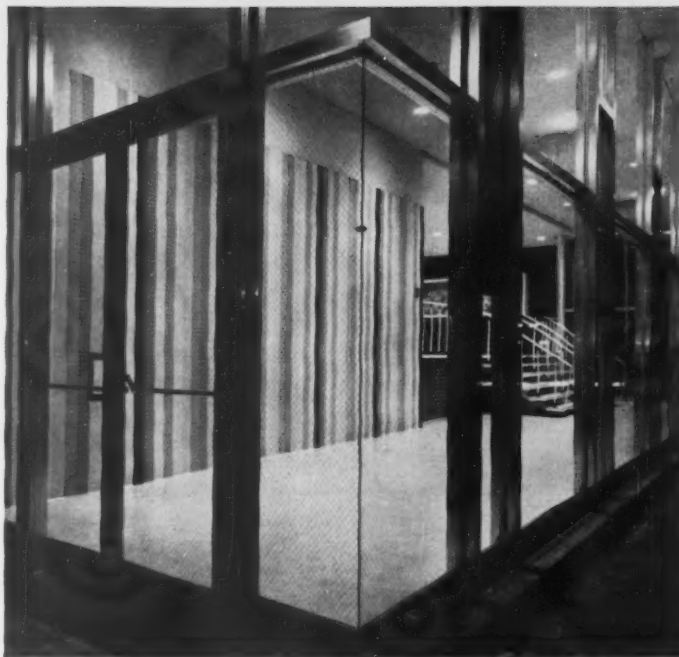
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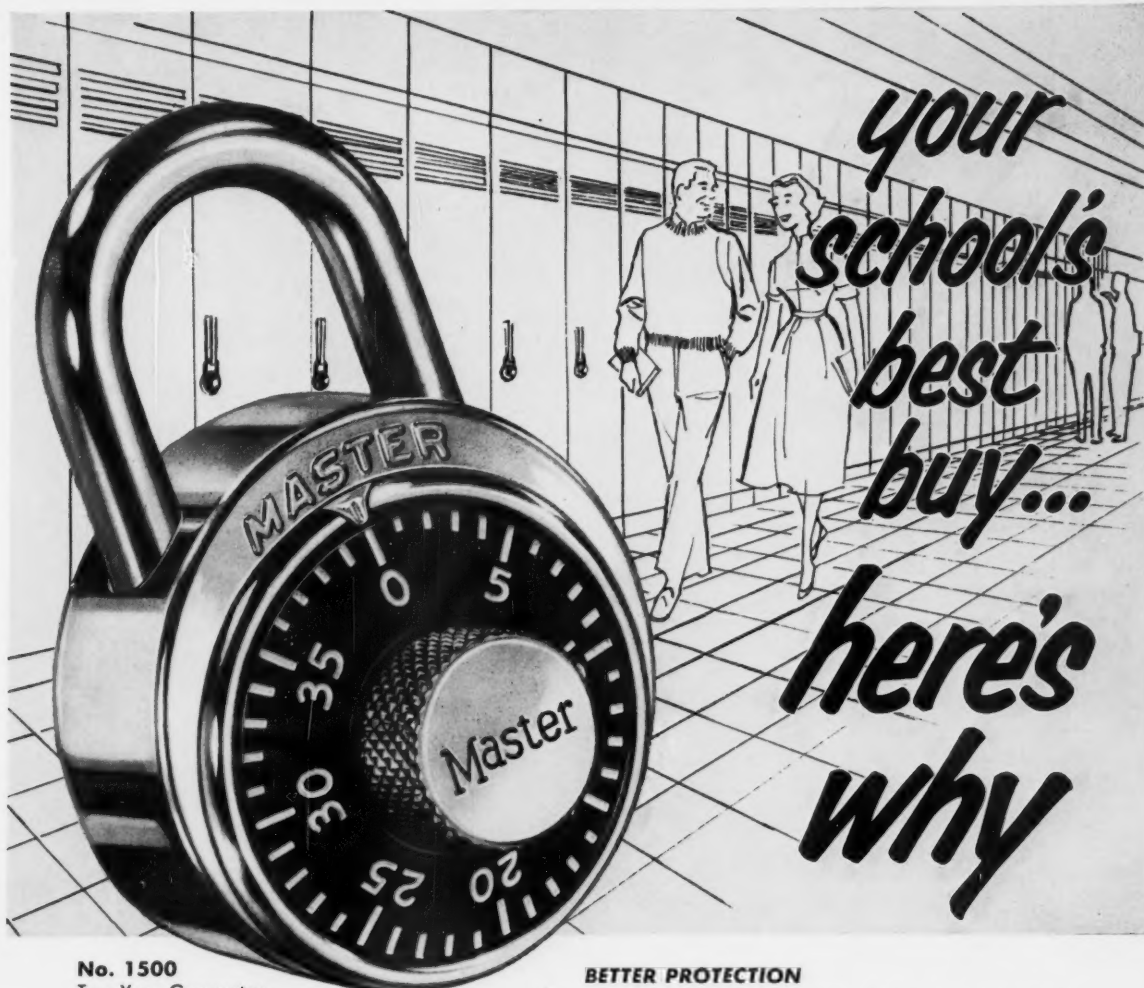
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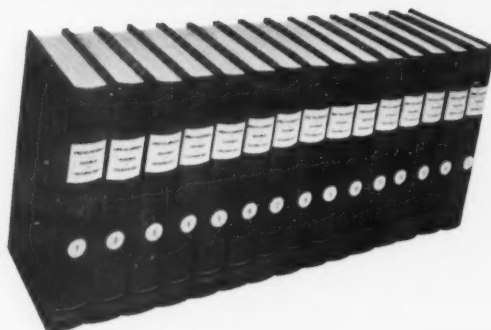
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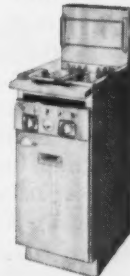
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1 Are frames of seats preferably welded when used to safeguard against accidents and to protect floor openings?		
2 Do seats operate on a telescopic principle, completely free of binding movement? (See Fig. 1)		
3 Are seats designed and constructed independent of outside frame multiple supports, braces and pins? (See Figs. 1, 2, 3 & 4)		
4 Is steel understructure free-standing and self-supporting independent of steel seats, risers and footboards? (Steel members should add to strength of understructure, and bear no structural stress.) (See Fig. 1)		
5 How much full weight may one or more feet resting uprightly to support a capacity load in complete safety? (See Fig. 1)		
6 Are uprights completely independent to avoid crowding of adjacent seating? (See Fig. 1)		
7 Are uprights constructed as top and bottom in upper "C" shape, free from binding openings and hinges? (See Fig. 1 & 2)		
8 Are all openings completely protected with the same metal material? (See Fig. 1)		
9 Are rollers mounted in steel housings on an extra plate, not against parallel uprights, and to prevent rubbing on adjacent understructure of floor and support? (See Fig. 1 & 2)		
10 Do rollers support seats and footboards when seats are under load to avoid any undue stress on support? (See Fig. 1)		
11 Are front row uprights equipped with top row roller housings to avoid stress on support? (See Fig. 1)		
12 Do seats have hand raised safety lock for maximum comfort?		
13 Do steel uprights have an under-seat, mechanically applied, self-cleaning vacuum brush, which cleans seats, prevents dirt accumulation, and reduces gym floor dust? (See Fig. 1)		
14 Can rows number of seats be opened and safely locked in position for an entire set of classes? (See Fig. 1)		
15 Do seats occupy minimum floor space when closed?		
16 Can seats be opened to desired row count requirements, without alterations to seat structure?		
17 Can seats be equipped with automatic height rise means to prevent sagging of footboards on?		
18 Are roller seats equipped with an opening (cylinder 1/2" dia.) to be inserted and secured in the floor?		
19 If seats are to be opened, how many rows of positive action gear, independently, can be opened?		

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MORE SEATING? Medart 16-foot seat sections up to 12 rows high use only 32 1/2" of floor depth when closed. *Better seeing* is assured with a choice of 17" or 18" seat heights. Ample toe and heel space add to comfort of spacious seat room.

EASIER OPERATION? Floating telescopic seat supports and interlocked twin rollers under each upright assure easier opening and closing; prevent binding and damage.

LESS UPKEEP? Harder, tougher clear wood finish lasts up to 15 times longer. Vertical fronts collect less dust. Swing-up front riser makes sweeping of debris quick, easy. Also, rubber rollers won't mar finely finished floors.

Sharply competitive in price, Medart Telescopic Gym Seats offer a host of exclusive features that promise savings in money, better performance, extra years of service.

MEDART
TELESCOPIC GYM SEATS



AT TULANE



The floor in Tulane Gymnasium, where all varsity basketball games are played, is finished with safe, durable, non-slippery Seal-O-San.

"Seal-O-San and good basketball are teammates!" says *Cliff Wells*



Cliff Wells, Head Basketball Coach
Tulane University
New Orleans, Louisiana

"There is no substitute for fundamental training in basketball, and *there is no substitute for Seal-O-San* in surfacing your basketball floor," says Cliff Wells. "Seal-O-San and good basketball floors are teammates. Speed and sure footing, which are so necessary in basketball, are insured by Seal-O-San. That's why I specify Seal-O-San *must be used on*

the Tulane Gymnasium floor, where all varsity basketball games are played."

Coaches like Cliff Wells insist on Seal-O-San. He has learned, through years of experience, that he can depend upon Seal-O-San with assurance that it produces the finest possible basketball playing surface. Test Seal-O-San in your school this year.

Get your copy of the new Coaches Digest. Free to coaches and athletic directors... please write on your school letterhead. Others send 50¢ handling fee.



HUNTINGTON

... where research leads to better products

HUNTINGTON LABORATORIES • HUNTINGTON, INDIANA • Philadelphia 35, Pennsylvania • In Canada: Toronto 2, Ontario

the

LinguaTRAINER

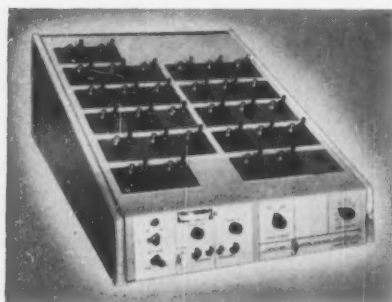
T.M.

ELECTRONIC LANGUAGE LABORATORY SYSTEM*

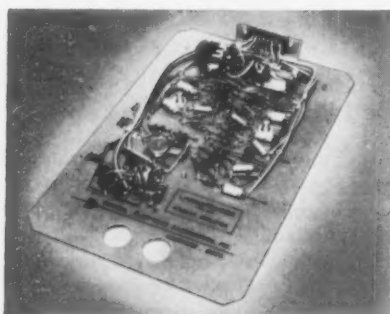
"It's as easy to use as flipping a switch!"



The Remote Control Cabinet (top half shown) contains all electronics and tape recorders that are normally placed at each student position.



The Teacher's Console contains controls for tape recorders, channel selection, monitoring, and for making master tapes.



Transistor Amplifiers for each student position are mounted with plug-in terminals for quick removal and easy replacement.

At last, in the LinguaTRAINER, a system has been technically and pedagogically engineered to meet the needs of the language teacher in instructing an entire class, several groups of the class simultaneously, or individual students — with minimum effort and optimum results!

The LinguaTRAINER is easy to operate, even for the least mechanically inclined person. As can be seen from the picture above, the student has *no* mechanical operations to perform, and only one switch to manipulate. The entire class period can be used, therefore, for teaching and learning. Tape recorders are located in a remote control cabinet, and provide record and playback for every student. Tape cartridges require no threading of reels, no splicing, no rewinding, and can be used again and again by successive classes without rehandling.

High fidelity sound reproduction, an important factor in language work, is featured. Most important, anyone who can flip a switch can operate the LinguaTRAINER successfully.

Write to Mr. Bruce Boal for LinguaTRAINER Brochure

*Patents pending

SCIENCE ELECTRONICS, INC.

197 Massachusetts Avenue, Cambridge, Massachusetts

a subsidiary of

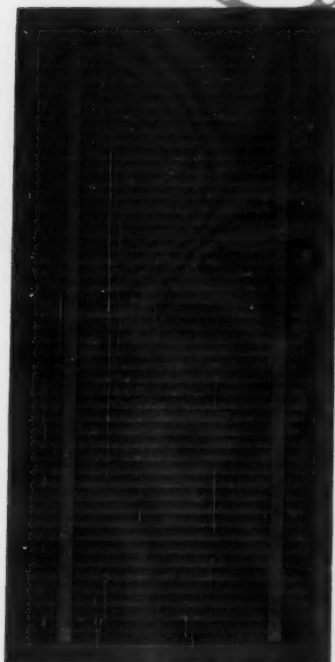
GENERAL ELECTRONIC LABORATORIES, INC.

Some of the purchasers of the LinguaTRAINER are: Adelphi College, Brown University, California Institute of Technology, Choate School, Frederick High School, Gettysburg College, Masconomet Regional High School, Massachusetts Institute of Technology, Milton Academy, Northwestern University, Palo Alto Junior and Senior High Schools, Thayer Academy, University of Oregon, U. S. Air Force Academy, George Washington University, Williston Academy, Wilmington High School, Worcester Academy.

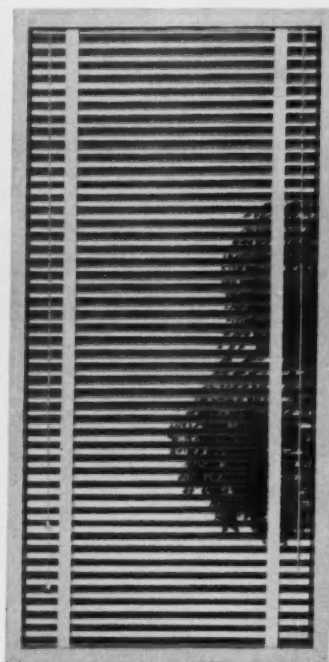


ARE YOUR WINDOWS AS MODERN AS YOUR METHODS?

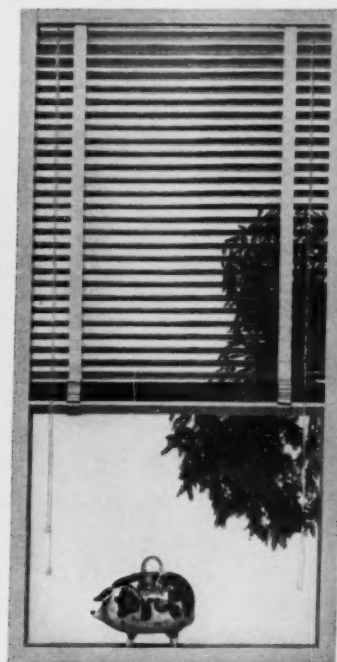
Audio-Visual teaching makes your coverings out of date unless...



**THEY MAKE ANY ROOM BLACK-OUT
DARK IN SECONDS...EVEN AT NOON!**



**YET GIVE AN INFINITE
RANGE OF LIGHT CONTROL!**

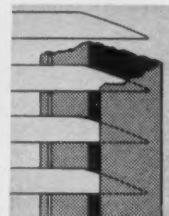


**AND COST LITTLE TO START
WITH...LESS TO MAINTAIN!**

Sure, black-out coverings get the room dark. But they don't cut down on glare. Sure, conventional coverings control daylight. But they don't achieve an effective black-out. That's why both are as out of date as a one-room school! Only Flexalum Audio-Visual blinds can give you the precise light control you need for everyday class activities...and *also* plunge the room into absolute darkness for Audio-Visual teaching. Reasons: Flexalum is made with more slats, which means greater overlap—plus special light channels which keep light out around the sides. All this and you *save*, too. Because Flexalum also gives more years of service than any other type of window covering...*a promise we back with a five-year written guarantee.* Look into Flexalum for your school.

Write for test results and specification data to: Bridgeport Brass Co.—Hunter Douglas Division, 405 Lexington Ave., New York 17, N. Y.

Flexalum
AUDIO-VISUAL BLINDS



Newest Flexalum exclusive:
plastic-lined side-channels
eliminate noisy "flutter."



"CLOSE SHAVE"

in the classroom

Drivotrainer teaches safer driving habits, better judgment without risking lives or property

For beginner or veteran, the *real* test of driving ability lies in an emergency! That's why students in high schools using the Aetna Drivotrainer system as a basic part of the driver education program are better, safer drivers. The Drivotrainer, an electro-mechanical training device, permits students to "drive" through all kinds of situations—face emergencies only a life-time of driving experience could duplicate. Conditioning students to react *instantaneously* and *correctly* is done in the classroom—without risk to life or property. Used in conjunction with dual-control on-the-road instruction, the Drivotrainer saves *teaching costs*, saves *time*, and saves *lives*.

With increasing need for expanded driver education placing more demands on teachers' time, high schools everywhere seek ways to teach more students better, faster and at lower cost. Here are three important advantages the Drivotrainer offers:

Better educational value—teaching basic driving skills, developing safer driving attitudes in a wide variety of learning situations.

Higher level of student proficiency—permitting instructors to drill students in facing emergencies until satisfactory level of performance is achieved.

Lower per pupil costs—multiplying the number of students that can be taught *without* increasing the teaching staff, making reduction of dual control on-the-road time possible.

Rockwell extends service to schools by manufacturing and distributing the Drivotrainer system which was developed as a public service by the Aetna Casualty and Surety Company. Working closely with a panel of nationally known educators, Aetna perfected the Drivotrainer at a considerable investment in time, money and effort. Now, with its effectiveness fully documented by educators, the Drivotrainer is taking a place in more high school driver education programs—and is used by the U.S. Air Force in re-training experienced drivers.

Rockwell will continue to provide the same quality of product and of service which has won for Delta Power Tools a place in 72% of U.S. school shops, and that has made Rockwell measurement and control instruments the standards of quality in their fields. For further information on the Drivotrainer and Deferred Sales Plan, write: Rockwell Manufacturing Company, AVM Division, Dept. 403D, Pittsburgh 8, Pa.



No risk is involved when "emergency" is on film and student is at the wheel in the Drivotrainer classroom.



Students "drive" stationary cars equipped with all essential instruments and controls. Manipulative skills are developed as students become acquainted with basic traffic patterns taught through specially prepared film series.



Recorder and film projector are contained in central unit. Automatic scoring system prints actions of each student on master sheet, enabling instructor to follow individual performance.



mister school administrator:



YOU ARE RESPONSIBLE !

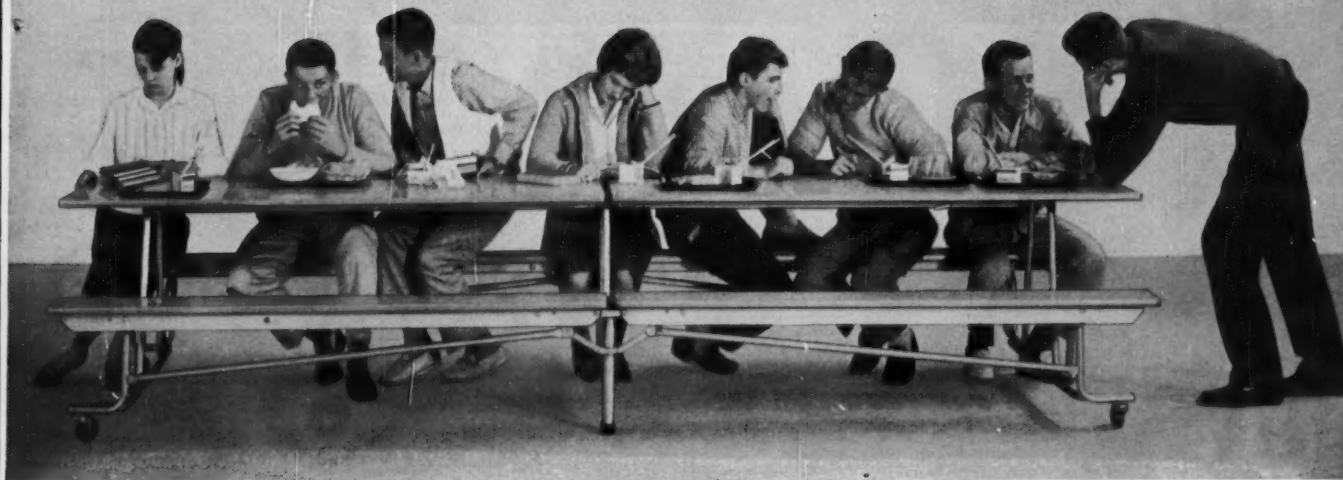
YOU...are the individual elected or appointed by the community to manage the affairs of its school program...YOU...are the one responsible for the erection of classroom facilities...YOU...are the one responsible for your school's curricular program... Thus, when you examine the blueprints for a proposed new structure, *YOU are the one who must make certain that the community gets its full dollar's worth in terms of construction materials that will provide top performance...*

YOU... Maker of Decisions... can look at plans that specify Genuine Lath and Plaster for walls and ceilings and *know* that sound control, ease of maintenance and fireproofing are built-in at an economy that can be matched by no other material.

NATIONAL BUREAU FOR LATHING AND PLASTERING, INC.
311 Tower Bldg., 1401 K St., N.W., Washington 5, D.C.



ERICKSON TABLES ARE BUILT FOR RUGGED USE!*



Double steel framing under the benches and under the top. Pivot points anchored in metal —can't pull out. Tough NEMA plastic tops pressure-bonded to solid $\frac{3}{4}$ " core material.

WE MAKE 50 MODELS SO YOU CAN CHOOSE the perfect table to fit your needs. You get the widest choice in the industry with Erickson . . . portables, plus recess-wall and on-wall portables . . . with benches or without . . . 6, 7, 8, 10, 12 and 14 footers, many types of tops. Ericksons are simple to fold, easy to store.

**Yet, priced to fit today's budgets.*

Circle no. _____ on reader service card for new catalog.

THE ERICKSON PRODUCTS DIVISION OF

Hamilton

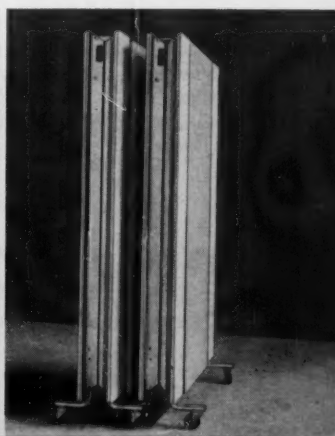
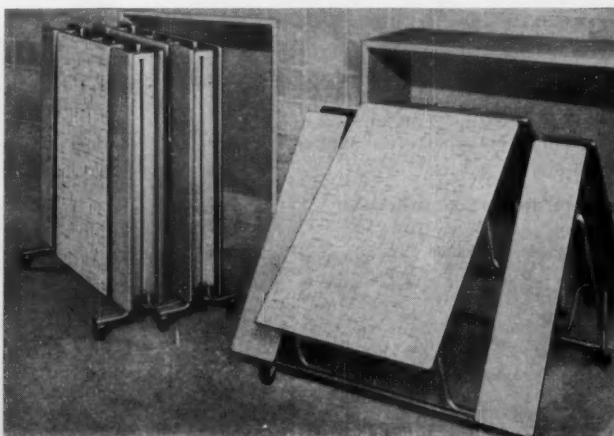
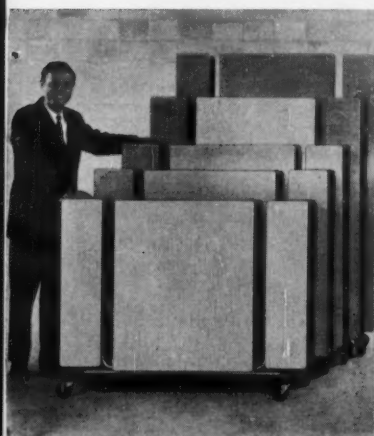
MFG. COMPANY, TWO RIVERS, WISCONSIN

Manufacturers of Educational Equipment for Science,
Home Making, Libraries and Arts & Crafts.

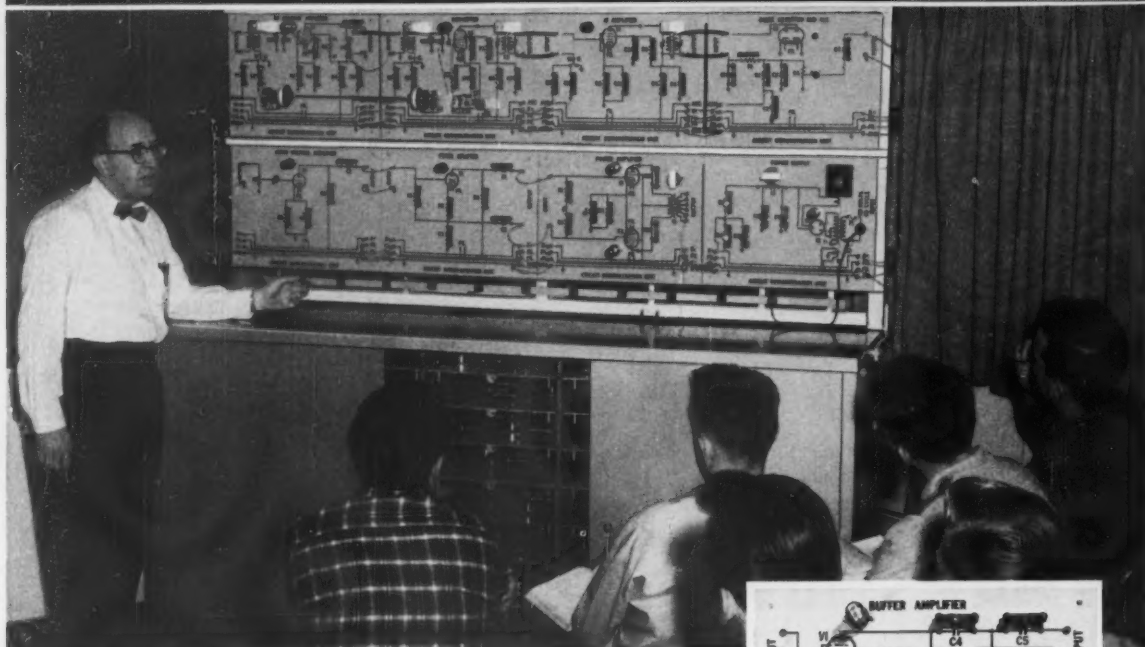
SLIMMEST FOLDING TABLES MADE! Erickson tables fold to 7½" — half the depth of other makes. Note that benches fold level with tops — it's simpler and it saves space.

MORE PLANNING FREEDOM. By nesting four, you can store 24 feet of table space in an Erickson cabinet just over 3 feet high. No need to plan the building around the table — when there's an Erickson for every plan.

ERICKSONS LOCK TIGHT, NEST RIGHT. Ericksons fold **flat** for snug space-saving storage. Positive position locks prevent "surprise" openings, and there's no teeter-totter when extended.



Electronics Programs for Your School COMPLETE IN ONE PACKAGE



BUCKS COUNTY AREA TECHNICAL SCHOOL LOCATED AT FAIRLESS HILLS, PA.,
GEORGE M. SCHAFER, PRINCIPAL

Courses are fully organized... lecture demonstrations, experiments, workbooks and tests all correlated with text books

Philco Electronics Training Packages employ proven methods to make teaching easier and give students a better understanding of electronics theory and applications.

The Philco Electronics Classroom Demonstrator presents the circuits of electronics theory and equipment a step at a time with easily learned "building block" circuit panels. Students learn and understand electronics better when presented in this simplified circuit by circuit manner. When students fully understand each basic circuit, their functions and relationships to the system are easy to comprehend as the "building blocks" are combined one by one on the rack of the console demonstrator to form complete and functioning electronics equipments and systems. Students learn by doing with lab chassis that correspond to each "building block" circuit panel.

Classroom demonstrations, laboratory experiments and tests are completely organized for the teacher in the instructor's manual... and all are correlated with the text book. Students' workbooks provide direction and guidance.

The console houses as many as 40 different "building block" panels in its cabinet base. Entire console unit moves easily on its own casters and plugs into any regular A.C. outlet. No building modifications needed.

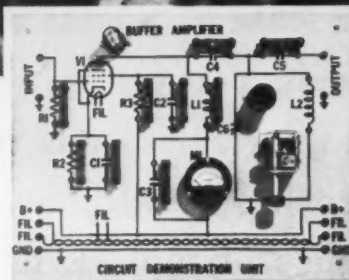
A variety of one, two and three year programs geared to modern technologies are available. Programs can be tailored to suit the specific training needs of any school or community.

For further information, please write:

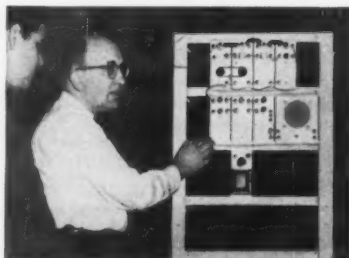
PHILCO TECHREP Division

"C" and Ontario Streets

P.O. Box 4730, Philadelphia 34, Pennsylvania



Building Block Circuit Panel—Each is a basic circuit... function and relationship to entire system are easily explained as it is added on the demonstrator.



Matching Lab Units—For each "building block" circuit panel there is a matching lab chassis, a complete and operating counterpart unit for laboratory experimentation.

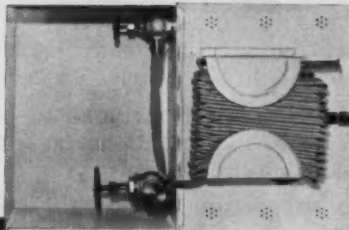
*pretty
neat!
smallest,
most
compact*

FIRE HOSE CABINET!

It's the ALLENCO semi-automatic trimless "Hozegard" cabinet that not only matches good modern design but also permits flush mounting. The door is all that's visible! No trim to deal with. An exclusive, foul-proof hose rack is on the inside of the door which swings out 180° for instant and easy hose withdrawal. Hose *can't snag*, is always ready for instant action. U. L. Listed when hose clip is included. Available in sizes to include extinguisher and/or auxiliary 2½" angle-valve. Illustrated is Unit 7169. It has 22½% smaller visible area than other trimless cabinets containing the same equipment. Body is 20 gauge, door is 12 gauge, hinge is continuous semi-concealed, sight glass is 16" x 7½", handle is chrome plated. Overall dimensions: 26" by 27" by 8".

Specify ALLENCO by name

WRITE for your free copy of the ALLENCO "Fire Check Book", Speeds spec writing. Shows basic requirements for standpipe system, Hose stations, Extinguishers, Exterior centers. An invaluable guide.



W. D. ALLEN MANUFACTURING CO.

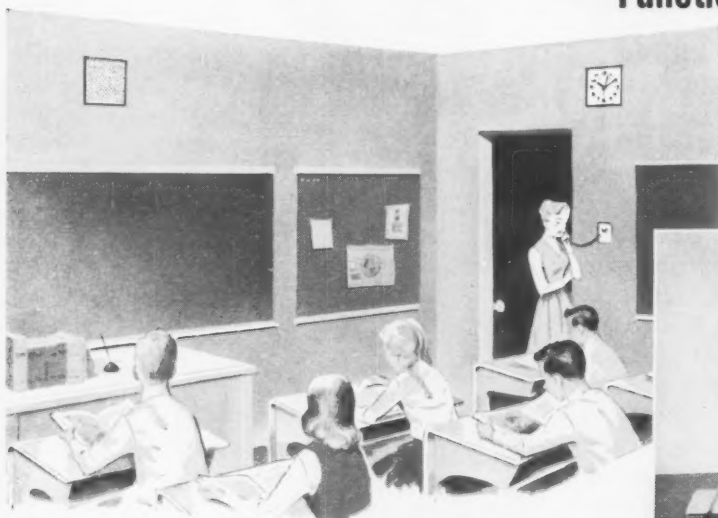
650 South 25th Avenue • Bellwood, Illinois

New York Office and Warehouse • 66 Reade Street, New York City 7

NEW for Schools...

PRACTI-CALL[®] ... the practical, all-purpose communication system

"Functionalism without Frills"



Telephone permits private, two-way communication.
Wall speaker provides for general announcements,
special events, emergency instructions, etc.
Wiring is in same conduit as clock and program system.

PRACTI-CALL system is incorporated
as part of clock and program system
... utilizes same conduit, existing bell
control board (background)
... is operated by office secretary.



Here at last is an *economical, sensible* communication system designed especially for schools. PRACTI-CALL fills *all* school communication needs:

1. General announcements, news, special events, emergency instructions, etc. are communicated to all classrooms simultaneously through an "all call" speaker system.
2. Conversations requiring privacy (approximately 90% of all intra-school communication) are carried on over a private telephone system.

With all its flexibility of use... an adaptability never before available... PRACTI-CALL costs *substantially less*. No bulky, high cost console... no intricate mechanisms to go awry.

IMPRESSIVE INSTALLATION SAVINGS—All basic wiring runs in the *same conduit* as the school's clock and program system... effecting additional important savings on installation.

PIN-POINTED RESPONSIBILITY—Service, whether on clock and program system or communication system, is from a *single source* when PRACTI-CALL is specified with a STANDARD program system.



Request Bulletin No. 248 containing
complete information and specifications.



THE STANDARD ELECTRIC TIME COMPANY

89 LOGAN STREET • SPRINGFIELD, MASSACHUSETTS

CONCENTRATED SYNTHETIC DETERGENT

FLOATS-OFF

**DOES ALL YOUR DIRTY WORK
...AND DOES IT BETTER!**

FLOATS-OFF removes dirt—all types of dirt—from floors, walls, woodwork, windows, furniture, fixtures, utensils, machinery, *in fact, anything you clean with water.*

FLOATS-OFF is neutral ... harms nothing but dirt. It actually floats off the dirt without laborious scrubbing ... rinses free of streaks ... leaves surfaces shining clean.

Let your Holcombman show you how **FLOATS-OFF** can save you money by doing *all* your cleaning better, in less time.

J. I. HOLCOMB MANUFACTURING CO., INC.
INDIANAPOLIS 7, INDIANA

HOLCOMB



THE CAMPUS of De Pauw University.



A NATIONAL ACCOUNTING SYSTEM paid for itself in less than 2 years.



NATIONALS OFFER new accounting efficiency to many institutions.



LUNCHEONETTE is popular with students because of quick, pleasing service.



ATTRACTIVE INTERIOR of this university's gift shop.

"Our *National* Accounting System
returns 62% annually...
on investment!" —De Pauw University, Greencastle, Indiana

"Our National Accounting System has given our university commendable performance," writes Frank DeVaney, Assistant Comptroller of De Pauw University.

"To summarize, our National System operates quickly, accurately, and efficiently. Let me illustrate. Our volume has increased by nearly 20% during the last three years. However, installation of Nationals has maintained our schedule of trial balance by the fifth day of the following month without increase of person-

nel. In addition to this speed, we now have the assurance that our records are precisely correct.

"The efficiency of our Nationals is most concretely realized in terms of money savings. Our National System returns 62% annually on investment!"

Frank DeVaney

Assistant Comptroller of
De Pauw University

Your institution, too, can benefit from the time- and money-saving features of a National System. Nationals pay for themselves quickly through savings, then continue to return a regular yearly profit. National's world-wide service organization will protect this profit. Ask us about the National Maintenance Plan. (See the yellow pages of your phone book.)



TRADE MARK REG. U. S. PAT. OFF.

National*

ACCOUNTING MACHINES

ADDING MACHINES • CASH REGISTERS
NCR PAPER (NO CARBON REQUIRED)

THE NATIONAL CASH REGISTER COMPANY, Dayton 9, Ohio
1039 OFFICES IN 121 COUNTRIES • 76 YEARS OF HELPING BUSINESS SAVE MONEY

NOW...

THE
UNQUALIFIED
LEADER
IN SCHOOL
EQUIPMENT

BY

IN-SCHOOL

PERFORMANCE

*In a study of
Schools Purchasing Two
or More Furniture Lines
Five Years Ago, Brunswick
Performance Rated Higher
Than All Other Brands Combined!*

Brunswick



THESE TWO QUESTIONS WERE ASKED

1 Which furniture made the best contribution to your educational program?

52% rated Brunswick first

30% rated Brand A first

18% rated other brands first

2 Which furniture do you consider the best investment value?

52% rated Brunswick first

27% rated Brand A first

21% rated other brands first

Survey conducted by Gould, Gleiss & Benn, Inc., Independent National Market Research Organization, December, 1959.

NOW...

**THE
UNQUALIFIED
LEADER**

*you'll
better*

C O



The right size of
learning atmos-
phere, brick wall and d-
used in the cab-
stimulation are

*you'll discover a whole new world of
better learning... and lasting value in the new*

CONTEMPORARY SERIES

by **Brunswick**



size chair... the right height desk (it stacks)... the right atmosphere. A dominant blue background with neutral gray and draperies are used to offset a warm exposure. Blue is the cabinets to relate to the background. Yellow doors, for example, are repeated in the chairs to bring the color into the room.

This triple duty fifth grade room was created in minutes. Cabinets help separate teacher-reading group (forward) from study and project groupings at rear along windows. Bookbox Desks have Float-action lids, a torsion-bar lid control for finger-tip raising... no-slam closing.



Its incomparable *flow-line* beauty speaks for itself!

Less apparent, yet even more important in these days of mounting costs and tightening budgets, is the unmatched educational and service value built into every piece of this outstanding line of furniture.

Typical of the new Contemporary Series is the quality and serviceability of its body-molded, Lifetime Fiberglass one-piece seating unit. Not only is it impervious to heat and cold . . . not only will it resist marring, scratches, dents, but its unique one-piece design makes

it virtually indestructible in use. Its exclusive Color for Learning is through-and-through . . . wipes new with a damp cloth. Other maintenance-conscious design advantages include: weld-like attachability of chair desk and tablet-arm assembly, permanently bonderized metallic in-depth finish on metal parts, wrap-around table leg braces, Ophtho-Light, parchment patterned melamine plastic writing and work surfaces.

See for yourself why the new Brunswick Contemporary Series is your best investment . . . in terms of original cost, upkeep and lifelong service!



The little red schoolhouse never looked like this...but it could! A cheerful, cool, spacious kindergarten is furnished in balanced blending of red, yellow and blue with the dominant blue background color modified with yellow for cheerfulness. Cabinets separate room into four work-study-play areas, perfect for young, active minds and bodies.

Comfort . . . real learning comfort . . . is found for the first time in the new Brunswick chair design. Orthopedically perfect compound curves (possible because of the unique workability of Brunswick produced Lifetime Fiberglass) are molded right into the single piece Lifetime Fiberglass seating unit. Chairs are available in 8 sizes . . . each seating unit individually proportioned to the chair size. Exclusive uni-structure frame gives perfect weight distribution. Cushiony resilience of entire unit down to rubber-on-steel glides assures longer periods of relaxed concentration. All Contemporary Series' tables incorporate the handsome new wrap-around leg support . . . added stability without getting in the way of knees, chair edges.

***Designers Note:** The new Brunswick Contemporary Series is "evolutionary" in concept. It will blend perfectly in design, size and color with your current Brunswick furniture!



NOW...THE UNQUALIFIED ANSWER

to your need for
economical classroom
utilization

MODUWALL

Movable Chalkboard...
Wall-Mounted Visual Aids and
Movable Cabinets

by *Brunswick*

No need to worry about your future classroom requirements when you plan . . . and use . . . versatile, flexible Brunswick Moduwall and Movable Cabinets. Change rooms as school population changes . . . as grade or function changes . . . from day to day or semester to semester . . . from school to school.

❑ Versatile Cabinets for Storage, Display, Room Dividers and Specialized purposes. Available in 4-foot widths, 10, 15 and 22-inch depths. All parts standardized. Doors in 6 Colors for Learning.

❑ Moduwall Chalkboard Display Units and Accessories. Snap in place, easily removed. Panels are 4-foot module.



SEND FOR CATALOG

on complete ***Brunswick*** line of
furniture, cabinets, moduwall, gym equipment.

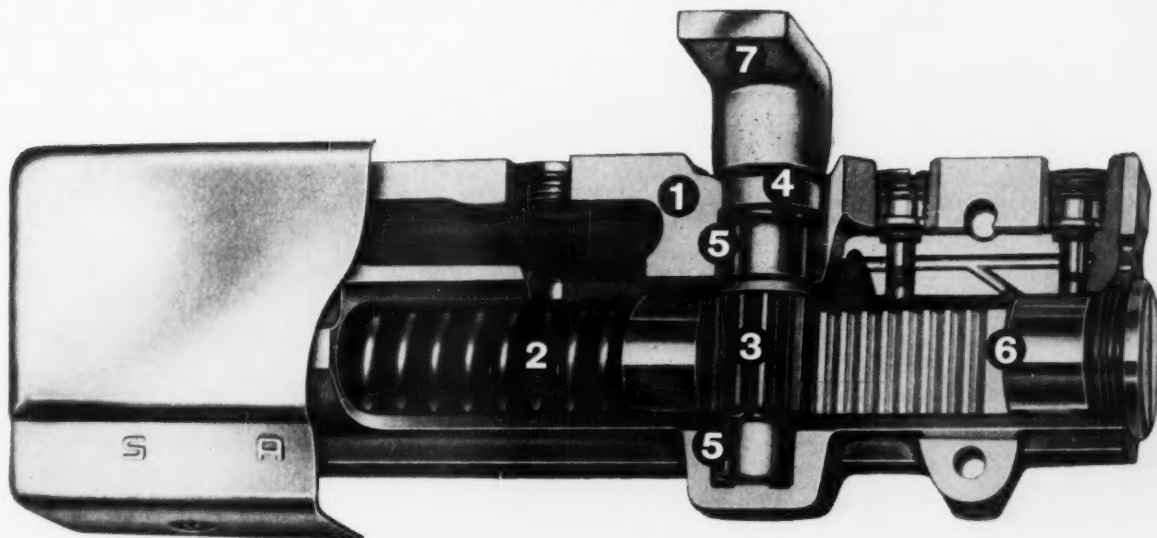
The Brunswick-Balke-Collender Company
623 S. Wabash Avenue, Chicago 5, Illinois

C-2-4

Name _____
Title _____
School/Firm _____
Address _____
City _____ State _____

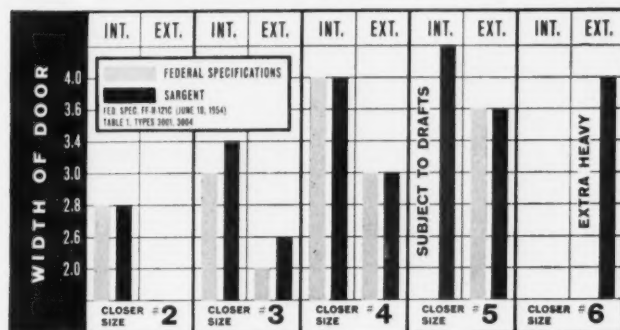
IN A CLASS BY ITSELF

because — part for part — the SARGENT **POWERGLIDE LINE**[†] of rectangular door closers does a bigger job... better



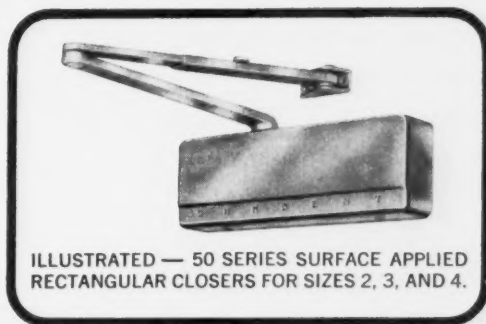
- ① High density, high strength cast iron case holds liquid under greater pressure... *assures maintenance-free, longer life.*
- ② Heavier spring works under less stress in longer chamber... *assures maintenance-free, longer life.*
- ③ One piece alloy steel spindle has induction hardened bearing surfaces... *assures maintenance-free, longer life.*
- ④ Spring loaded, lip-type shaft seal prevents leaking... *assures maintenance-free, longer life.*
- ⑤ Line bored bearing seats guarantee perfect alignment of bearings... *assures maintenance-free, longer life.*
- ⑥ Precision ground plunger provides perfect hydraulic fit... *assures maintenance-free, longer life.*
- ⑦ Forged steel arms have greater strength... *assures maintenance-free, longer life.*

Compare. You'll find that — dollar for dollar — the whole Powerglide Line does a bigger job... better.



Size for size, Sargent's Powerglide Line is designed to meet or exceed Federal specifications for performance on maximum door sizes.

[†]A Trademark of Sargent & Co.



SARGENT

COMPLETE LINE OF ARCHITECTURAL HARDWARE

SARGENT & COMPANY, New Haven 9, Conn.



PLANNED CREATIVITY

Teaching is the Art of planning and directing the creative energies of our children. Whether it be the modeling of ceramics...conjugating a Latin verb...or solving a problem in Algebra—children today benefit from advanced teaching methods and tools. And, they benefit, too, when forward-thinking school management specifies classroom furniture that reflects **planned** creativity in its scientific design and manufacture. For example, the Virco #410 Study Top Combination Desk shown here has already achieved acceptance among school administrators everywhere. For information on Virco's complete line of school furniture for kindergarten through college, send for our new full-color catalog with complete specifications. Write: Virco Mfg. Corporation, Dept. A-4, P. O. Box 44846, Station H, Los Angeles, Calif.

VIRCO





Student Center, North Carolina State College, Raleigh. The patterned floor of this dining-assembly-lecture space is Northern Hard Maple. Architect: William Henly Deitrick — John C. Knight & Associates, Raleigh.

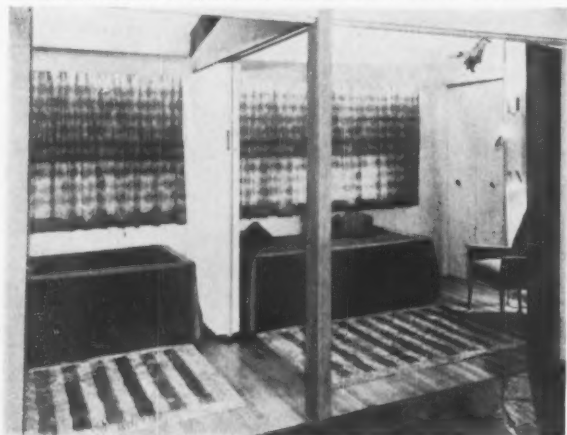
no school floor
you can buy
is as good a "buy"
as

the finest
floor
that grows



Gymnasium, Maine Township High School, Des Plaines, Ill. Architect: Childs & Smith, Chicago. Photo by Hedrich-Blessing.

Smartly bright and cheerful, the Maple floor of this student double bedroom reflects its warm and homelike welcome.



Northern HARD MAPLE

No structural part of the building takes so much wear as your school floor. Northern Hard Maple has *proved* it can take the millions of heedless footsteps of hurrying students for generations . . . and remain beautiful, cheerfully bright, sound and smooth, with simplest maintenance. It's the best possible floor investment, for gymnasiums, classrooms, shops, music rooms, multi-purpose rooms, dining rooms, dormitories—in fact, *all* rooms in elementary and high schools, colleges, convents. The 60-year-old trademark, **MFMA**, on the under side, guarantees precision and grading integrity. Specify it with the full trust it has earned.

WRITE for this **NEW** full-color Specification Manual, covering regular strip flooring and patterned mastic-laid installations, plus full grading rules. **NO CHARGE.** See Sweet's Arch.-13J-Ma.



MAPLE FLOORING MANUFACTURERS ASSOCIATION
Suite 589 • 35 East Wacker Drive • Chicago 1, Illinois

here's
STRENGTH
 where it counts...
 in the
HARDWARE

Get away from coatings and plating, and you have the solid-metal strength and durability that's needed in toilet compartment hardware.

That's why Fiat *LIFE-LINE* Harmonized Hardware is solid-to-the-surface selected alloy... aluminum above the floor, stainless steel for floor shoes... all in a harmonizing satin finish that blends with any decor.

It's top quality, furnished without exception for every Fiat Enclosure installation because it's been tested and proved best for the purpose.



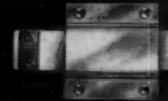
S-2 Alloy Wall Stirrups



S-2 Alloy Top Hinge Bracket



S-2 Alloy Bottom Hinge Bracket



S-2 Alloy Slide Bolt



Stainless Steel Plinth



Send for new Brochure: "Fiat Toilet Enclosures" to get the facts about the FIAT line, as well as architectural details and specifications.

5

STRATEGICALLY LOCATED PLANTS FOR FAST DELIVERY AT LOWER COST!

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Wide selection to suit your needs. INTERNATIONAL B-Line chassis offer four conventional models with passenger capacities from 24 to 66. Power choices range from

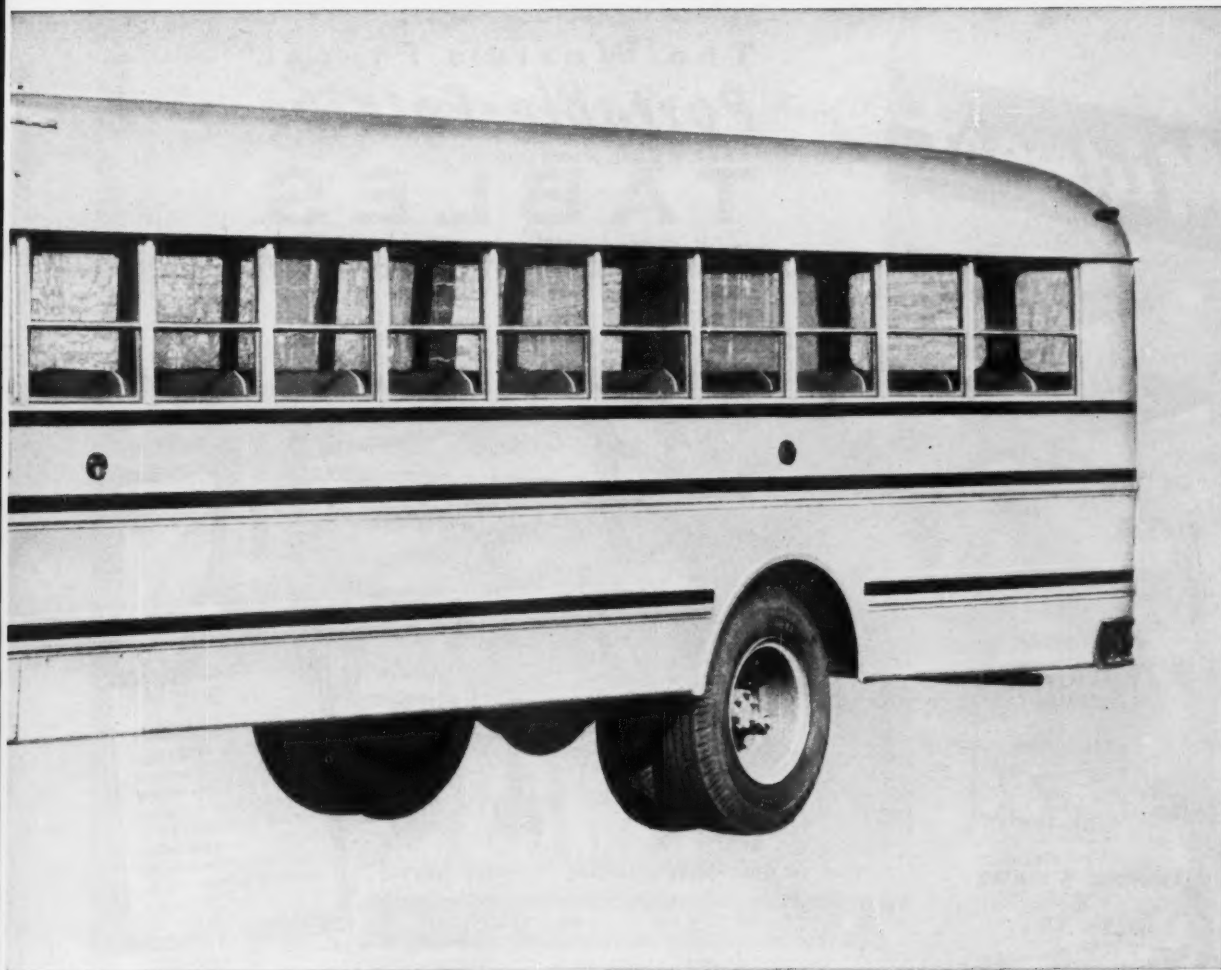
standard V-8's to optional 6-cylinder engines. Distinctive styling and wide range of optional features "individualize" these models inside and out.



For tough routes and heavy passenger loads.

INTERNATIONAL model R-1853 is the ideal choice where routes include steep grades or require heavy-duty chassis components and engine per-

formance. Deep frame, husky springs and truck-proved INTERNATIONAL 6-cylinder engine offer safety and reliability for as many as 66 pupils.



INTERNATIONAL SERVICE

keeps buses reliable—pupils safe

While safety is your first consideration in choosing a school bus chassis, service could well be your second.

On both counts, you'd be wise to make INTERNATIONAL your choice!

INTERNATIONAL offers transportation tailored to your needs, with models for carrying any number of students from 8 to 73. Brakes, springs, steering systems meet—and in many cases surpass—standards.

Whatever your choice, INTERNATIONAL Service can keep your buses rolling, safely and dependably. Your local Dealer or Branch provides convenient facilities, trained mechanics, prompt parts replacement, a preventive maintenance program tailored to your operating schedules.

In addition to the conventional models shown, INTERNATIONAL offers forward-control models, new rear-

engine chassis, the Travelall® and Metro® buses with multi-purpose factory-matched body and chassis.

Are you considering bids right now? Consider safety and service. Remember that you want a bus to be right on the job the first day of school—and to stay right on the job year after year. See your INTERNATIONAL Dealer or Branch for full details on this complete line of bus chassis.

INTERNATIONAL® TRUCKS

WORLD'S MOST
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The World's Finest Portable-Folding TABLES *America's Most Economical!*



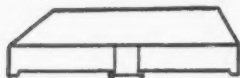
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EQUIPMENT



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STANDING & SEATED
RISERS



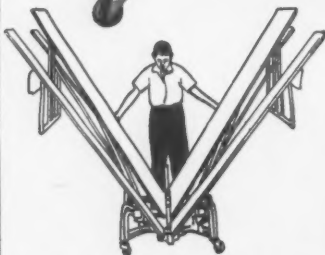
Portable-Folding
PLATFORMS and
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Portable-Folding
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HANDLING
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EASY TO OPEN—EASY TO CLOSE COMPACT STORAGE

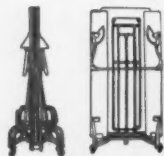


TABLE-BENCH Combination

LOOK AT THESE EXTRA FEATURES:

- ★ PUSH BUTTON FOLDING
- ★ GLIDER MOBILITY
- ★ COMPACT STORAGE
- ★ COMFORTABLY SEATS 16

Ruggedly constructed for years of service, all MIDWEST tables come with durable plastic tops and benches, tubular steel frames, heavy steel under frames and torsion bars for smooth, effortless opening and closing.

Challenger
Portable
Folding
TABLES



Four popular sizes with all the features you'd expect to find in the most costly folding tables.



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TABLES

The elite of the round table line. Easy to handle—easy to fold—easy to store.

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**10 YEAR
GUARANTEE!**
The precision made legs and mechanical parts of All MIDWEST tables and other products are guaranteed to operate satisfactorily for a period of 10 YEARS from date of purchase or they will be repaired or replaced free.

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SALES CORP. **NS-4**



known fact: Any bucket of cleaner starts losing its power as soon as you put a dirty mop or sponge in it! . . . but now . . .

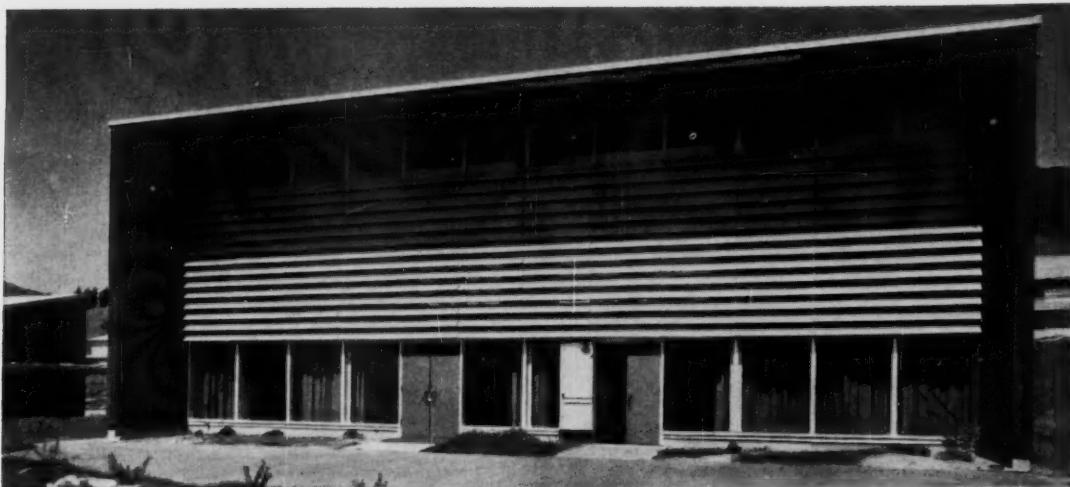


Announcing! the cleaner that gives you a full bucket's worth of cleaning power every time! **Johnson's FORWARD** . . . never suffers power fade-out. Even when it's loaded with dirt, you know its cleaning action isn't giving out! **Now, try FORWARD** and see what it means to get all the cleaning power you pay for! **Call your local Johnson's Wax Distributor . . . or write S. C. Johnson & Son, Inc., Service Products Division NS4, Racine, Wisconsin.**

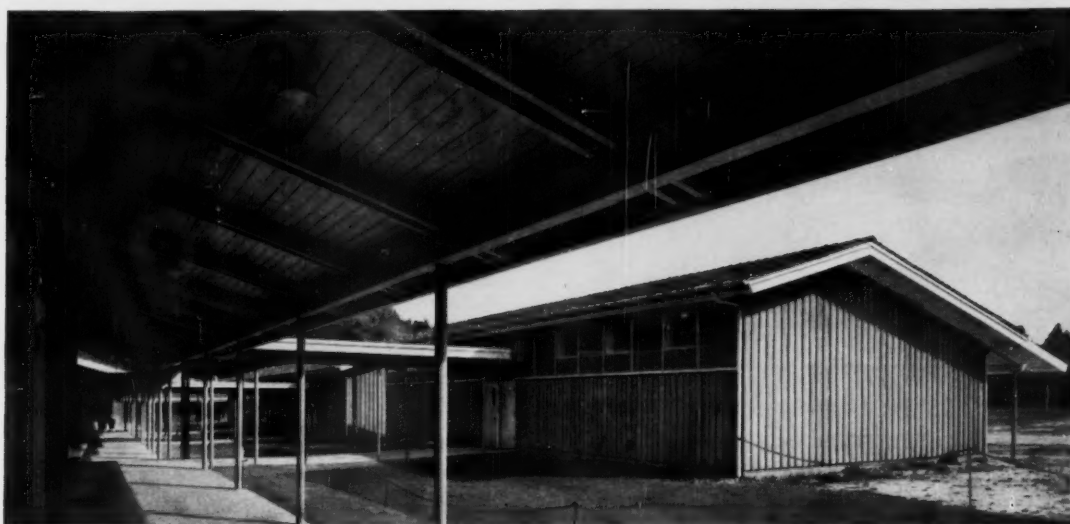
New Johnson's Forward a product of **JOHNSON'S WAX** service products division



Kiowa Elementary School, Kiowa, Colo. Robert W. Ditzen, architect



Olive Ave. School, Novato, Calif. Reid, Rockwell, Banwell and Tarica, architects.



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the design flexibility of WOOD

Wood's contribution to a better learning and teaching environment is not confined to the classroom. In new school gymnasiums, auditoriums, libraries, cafeterias, the incomparable design flexibility of wood provides a welcome combination of structural integrity and low initial cost, decorative warmth, and maintenance economy.

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For both tangible and intangible reasons, the more wood you use in a school, the more good school you build for each tax dollar.

NATIONAL LUMBER MANUFACTURERS ASSOCIATION
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Live, Work, Build Better with



This informative new booklet, "Environment for Learning," contains comprehensive data on the use of wood in schools. For your free copy (or copies), write to NLMA at the above address.



THE REPUTATION OF GEORGE STECK SCHOOL PIANOS HAS BEEN EARNED BY ITS PERFORMANCE YEAR AFTER YEAR

The skill acquired from a century of pianomaking has produced economical answers to three questions every purchasing agent asks . . .



Tone Production? George Steck's 88-note scale, acoustics and action are comparable to a grand piano. Strings are as long as those on a 5'1" grand.

Durability? Ruggedly built with six-post back and heavy toe blocks equipped with large ball-bearing, double casters. Takes hard use and asks for more.

Styling? This 45-inch design is mahogany or light oak blends handsomely with contemporary classroom decor.

Write for illustrated, specifications-packed folder. Learn why you get more for your budget dollar when you specify the GEORGE STECK Style E SCHOOL PIANO.

George Steck



Division of Aeolian American Corp. • East Rochester, N. Y.

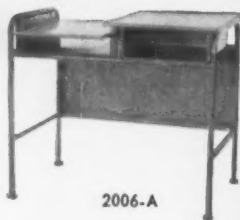
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AC-460 The deluxe of drawing tables. Large 24" x 24" adjustable drawing surface (larger available). Equipped with built-in board storage for 6 boards 20" x 28" and built-in taboret with 6 drawers with individual locks and keys and master key.

Teacher's desks, demonstration stands, student's business machine stands, adjustable typing stands or adjustable chairs—all are posture equipment in matching colors and styles.



2006-A adjustable typing stand. After individual is properly seated by Harco adjustable chair, typewriter platform can be adjusted to correct relation between individual and typewriter. Provides proper posture and typing efficiency.

C-1624 Stool. Designed for all vocational departments. Drafting, biology, chemistry, art, shops, etc. Full 8" adjustment—cast iron base with round steel or wood seat. Back available.



"LIFT-LOK" Posture Chairs And Stools By Harco. Over 25 models of completely adjustable chairs and stools. Full 1/2" height adjustment. Write for catalog and price list of complete line.

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Dictaphone's new course teaches the most widely used machine dictating method

Secretarial students gain valuable job experience when classwork is built around Dictaphone's new rental-at-cost training package. For they use the new Dictaphone TIME-MASTER® dictating machine with the Dictabelt® record—the up-to-date machine dictating method most widely used in business today.

There's a new, 200-page Dictaphone textbook with a full work program for one semester. Students learn from 18 practice Dictabelts containing precisely timed recordings of every type of dictation.

Practice work includes typical correspondence for a variety of professions and industries; medicine, law, government and 15 others.

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Dictaphone Corp., 730 Third Ave., N.Y. 17, Dept. NS-40

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"On The Way Up Before The First Job."

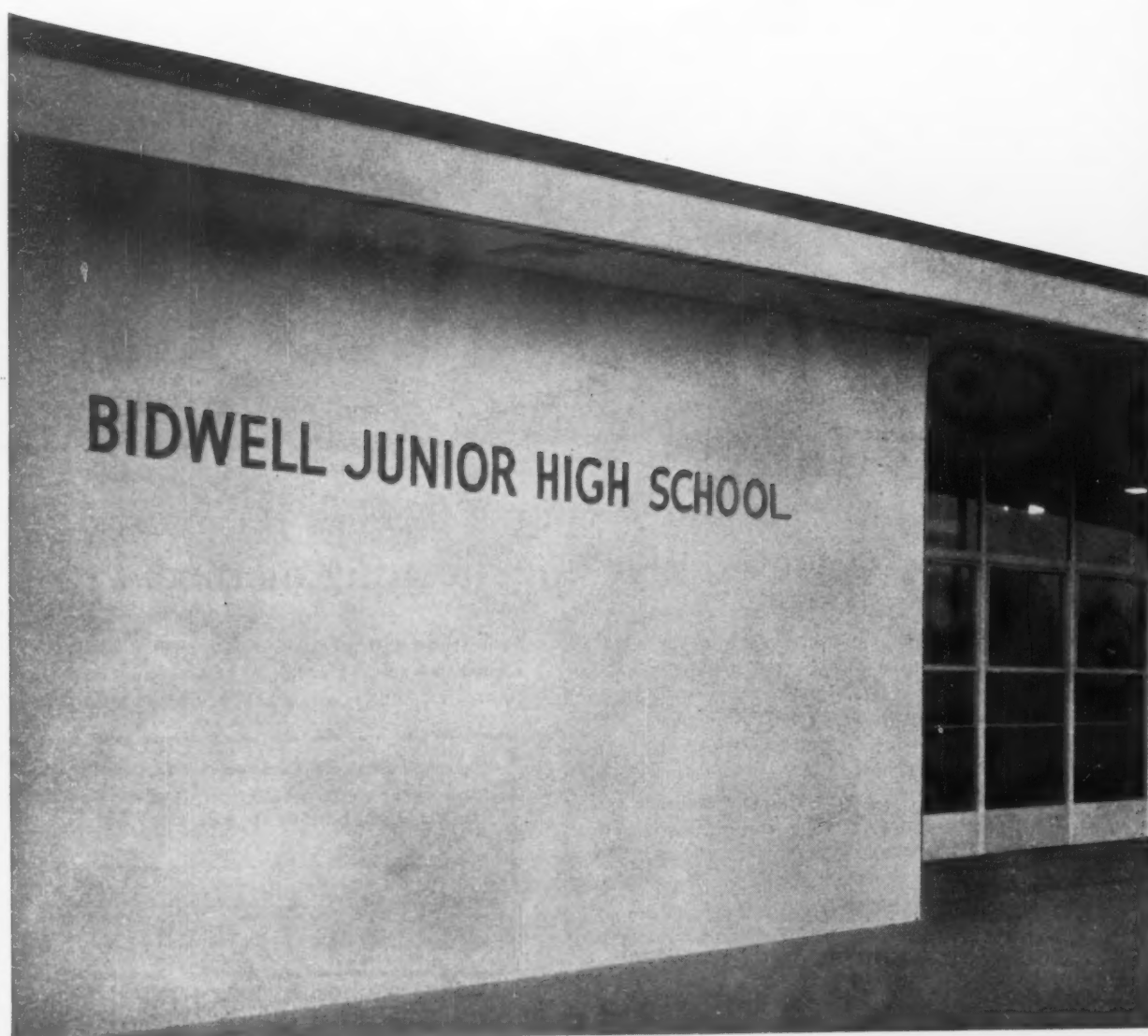
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Dictaphone® CORP.

Dictaphone, Time-Master, Dictabelt are registered trademarks of Dictaphone Corp., 730 Third Avenue, N. Y. 17, N. Y.; 204 Eglinton Ave. E., Toronto, Canada; 17-19 Stratford Place, London W. 1, England





here's why so many schools are heating with Norman Schoolroom Systems

- Room-by-room gas heating units, to meet individual classroom needs.
- Fresh air circulation, with only outside air used for combustion.
- Unusual economy of installation, operation and maintenance.

Teachers and department heads have complete control of the temperature and ventilation in their areas when you heat your school the Norman way. Individual gas-fired units heat and ventilate . . . automatically . . . and independently of any central system.

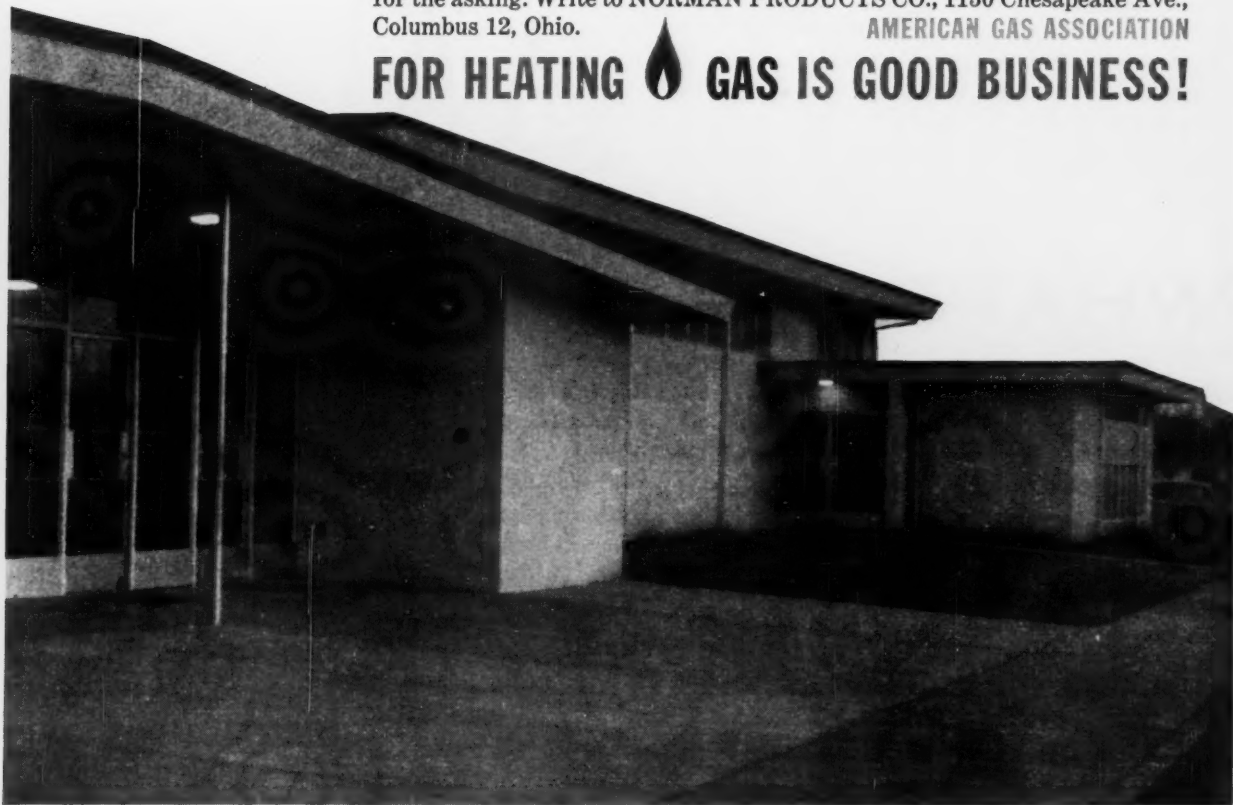
Fresh, circulated air — for comfort and health — is one of the big advantages of NORMAN SCHOOLROOM SYSTEMS. Only outside air enters the combustion chambers. Forced air distribution directs the heat at proper angles for classroom comfort.

NORMAN SCHOOLROOM SYSTEMS, partially pre-assembled, are installed quickly and economically. Individual units eliminate the need to heat entire school when only a few rooms are in use. And with thrifty gas, operation costs are low.

Complete information about Norman Products for school comfort is yours for the asking. Write to NORMAN PRODUCTS CO., 1150 Chesapeake Ave., Columbus 12, Ohio.

AMERICAN GAS ASSOCIATION

FOR HEATING  GAS IS GOOD BUSINESS!





*Charlie
the Destroyer*

WHAT'S GOING ON HERE?

Why, Charlie the Destroyer is trying to rip the tape, but he can't because LEVOLOR plastic tape is re-enforced two ways. Take a plastic fabric, impregnate this under pressure with more plastic, and you have LEVOLOR two-way re-enforced tape, a tape to resist the efforts of the most mischievous student in the school.

Information that insures the best installation possible is a service all LEVOLOR representatives will give you. They will submit a prospectus covering every detail of your Venetian Blind installation—help with the specifications and make a final inspection *after* the blinds are installed. It is a service that guarantees good specifications and good Venetian Blinds.

LEVOLOR TRADE MARK OF LEVOLOR LORENTZEN VENETIAN BLINDS
AUDIO-VISUAL CONVENTIONAL SKYLIGHT

Levolor Lorentzen, Inc., 720 Monroe St., Hoboken, N. J.

Tokeneke Elementary School, Darien, Connecticut. Architects: O'Connor & Kilham, New York City. Contractor: George L. Hickey, Inc., Stamford, Connecticut.

Space provided: fourteen classrooms, two kindergarten rooms, multi-purpose Common Room, covered play area, library, administrative suite, two conference rooms, teachers' room, health room, ten toilet areas, cafeteria kitchen, storage areas, custodial facilities. *Structural framing:* glulam timber beams spaced at 7'-9" for classrooms; glulam beam-and-column bents spaced at 21'-9" for Common Room and play area; heavy timber decking left exposed for ceilings. *Exterior walls:* brick with concrete block in service area; cypress siding for playroom. *Interior walls:* plastic coated coverings in classrooms, Common

Room and halls. *Heating:* hot water radiant panel system, zoned and thermostatically controlled. *Ventilation:* exhaust fans in classrooms, toilet rooms and kitchen; tempered air supply units in Common Room. *Lighting:* semi-indirect fluorescent fixtures. *Floors:* vinyl asbestos tiles on concrete slab over insulated concrete fill and moisture barrier. *Roofing:* translucent corrugated panels over playroom and covered walks; built-up tar and felt with white graveled surface over remainder. *Volume:* 300,000 cubic feet. *Area:* 28,000 square feet. *Cost:* \$14.40 per square foot; per-pupil cost \$760 (state average \$1105).



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Affiliated Company: TIMBER STRUCTURES, INC. OF CALIFORNIA, Richmond

Vol. 65, No. 4, April 1960

For additional information, use postcard facing back cover.

Member A. I. T. C.
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an IRWIN DESK helps solve school problems—



creates interest, a desire to learn and....



has many "other extra advantages"

* Learn more about the many "extra" features of all Irwin products. Free catalog upon request.



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LASTING QUALITY at LOW COST

Quality Smithcraft construction for extremely long-term use.

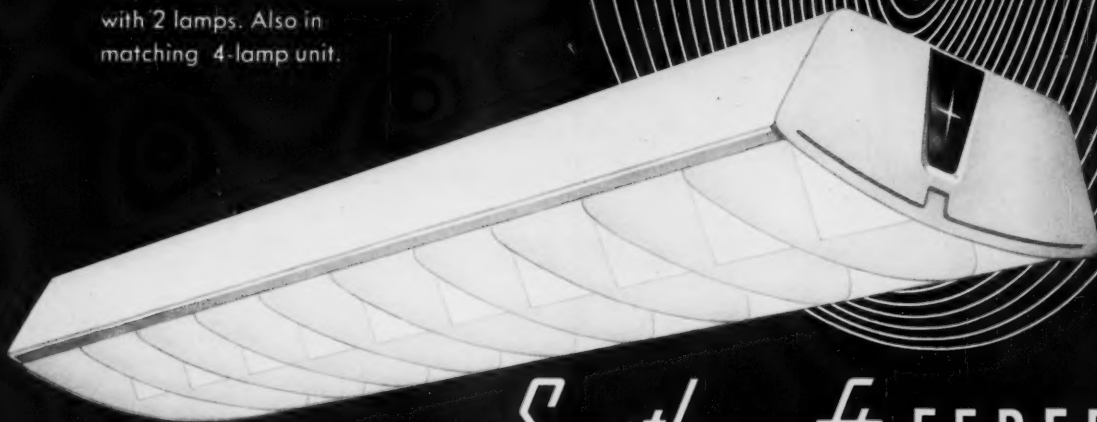
Your choice of steel or plastic side reflectors.

High lighting efficiency, in cutoffs of
35° x 25°, 35° x 45°, 45° x 45°.

Quick, efficient maintenance — baffle
swings open easily, side reflectors
easily removable for cleaning.

Safety-locked baffle opens
from either side — cannot be
removed inadvertently.

Available in 4 or 8-foot lengths,
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Light-conditioning by Smithcraft — America's finest fluorescent lighting

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Now! A top clean-up team for schools...



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**"Institutional Formula" cleanser
with controlled foam**

***cuts maintenance
effort 50%***

- Cuts grease like magic—pots and pans shine
- Reduces rinsing time
- Bleaches porcelain white as new
- Safe for hands—safe for colored surfaces
- Sanitizes and deodorizes
- Clean, pleasant fragrance

Available in large 21 oz. cans and 100 lb. drums. 6 Shaker cans packed in drum FREE.



Babbitt's Drain Pipe Cleaner and Opener—Acts fast to clean out the most stubborn obstructions. Sodium Hydroxide, the active ingredient, and cold water start hundreds of churning aluminum chips chewing away at your clogged pipe or drain problem. Use regularly to prevent costly clogging. Keeps expensive repair costs at a minimum. Packed in 13 oz. cans.



Babbitt's Toilet Bowl Cleaner—Eliminate the cause of offensive odors. When used regularly crustations and stains stay away and do not re-form. Leaves a fresh, wintergreen scent. Ends waste and glass breakage. Available in large 21 oz. cans only.

The entire line of B. T. Babbitt maintenance products is available *only* through institutional jobbers and distributors of maintenance supplies!

WRITE TODAY FOR YOUR NEAREST JOBBER



B. T. BABBITT, Inc.

Institutional Department
625 Madison Avenue
New York 22, N. Y.



Just 75 years ago, heating was about as unpredictable as the weather, as temperatures alternated between shivery low and smother-high. Then a Wisconsin school-teacher named Johnson decided to do something about classroom comfort and thereby launched a new industry!

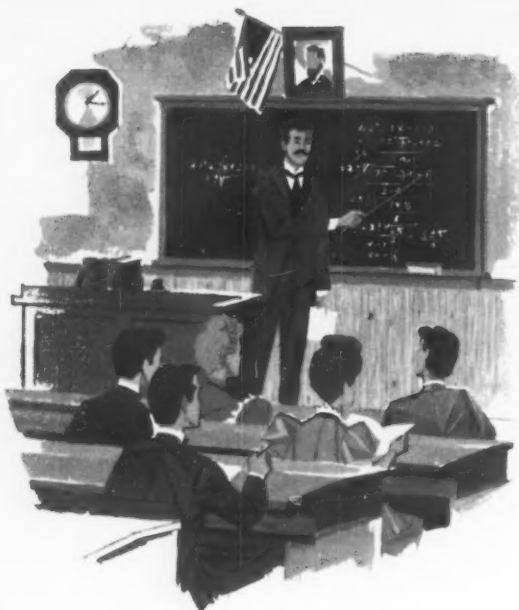
The Story of the Thermostat

Actually this is the story of a symbol . . . the symbol of an industry that has brought comfort, safety, better health, and efficient working conditions to people all over the world.

. . . Every morning of the school year, millions of students sit down to study and learn in comfortably heated and ventilated or even air-conditioned classrooms. To help provide this ideal environment, the great majority of schools and colleges everywhere depend on precision pneumatic control systems.

. . . In a specially equipped manufacturing plant, delicate missile parts and components, with micro-inch tolerances, must be made under temperature and humidity conditions that never vary. At every step in their manufacture, modern pneumatic controls assure error-free regulation of the thermal environment.

. . . In a hospital, surgeons perform a lifesaving operation. Accurate pneumatic controls maintain the temperature and humidity at pre-selected levels to conserve the patient's strength during surgery.



... Far at sea, one of the nation's deadly new submarines cruises undetected, an elusive, power-laden sentry of the "Silent Service." Her crew lives and works in comfort and safety — in a climate precisely regulated by a pneumatic control system.

... Across the continent, pneumatic controls assure safe air conditions in the highly critical processing areas of an atomic energy facility. Pneumatic controllers of extreme sensitivity operate constantly to assure safe disposal of waste air and prevent the escape of contamination.

These are but a few examples of the ways in which modern pneumatic controls play a vital part in regulating the environment in which we live and work — helping to create made-to-order indoor climate for every purpose, controlling temperatures and humidities to a degree undreamed of when Professor Warren S. Johnson invented the first automatic temperature control system back in the 1880's.

Inventor at Work

Though he was probably unaware of the fact at the time, Professor Johnson became the founder of the automatic temperature control industry when he devised a practical way to eliminate the problem of classroom temperatures that seemed to zigzag forever between shiver and swelter.

His first attempt at control — the "annunciator" system — merely called the janitor's attention to overheating, or lack of heat, by ringing a bell in the furnace room. The janitor would then open or close the classroom dampers, as required.

But this land-based version of a ship's telegraph soon gave way to an all-electric method, utilizing a thermostat in each room that would open and close the dampers automatically. And so, the first system of automatic heat regulation was born.

The Electro-Pneumatic System

Intrigued with the possibilities of his long-awaited discoveries, Professor Johnson in 1883 left his post at Whitewater, Wisconsin, State College and came to Milwaukee to devote full time to refining and marketing the Johnson System.

His second major achievement, an electro-pneumatic control system, occurred almost at once. By successfully uniting the forces of *electricity*, for thermostat operation, and *compressed air*, for valve and damper operation, he developed a far more dependable and fully automatic control system. Finally he was ready to go out and revolutionize the comfort standards of the world. In 1885, he incorporated the business which today bears his name.

With branches established in Chicago, St. Louis, and New York, the Johnson thermostat on the wall soon became a familiar sight in the leading buildings of the day. Schools, prominent residences, and small business buildings were first to enjoy the comforts and economies of automatic control. They were followed closely by colleges, hospitals, public buildings, offices, stores, and industrial plants.



From Mikado to Czar

Acceptance grew, markets widened. The fame of automatic controls traveled fast and far. Before 1890, the city of Berlin, Prussia, had written a report about the efficiency of its Johnson System. Later, the palace of the Mikado in Japan was equipped with Johnson Control. The King of Spain and other European royalty became Johnson customers. A special installation was made in the Kremlin in Moscow!

Single Responsibility

Professor Johnson had the foresight to realize that the key to his success depended upon the *proper application* of his controls. Accordingly, he determined, from the outset, that his company should *never sell devices*, but should sell a *principle of control*. This meant that each system would have to be planned, manufactured, installed, and serviced by *Johnson* to meet the exact needs of the individual building.

Over the years, this policy of complete responsibility by a single specialized organization has insured owner satisfaction and saved untold millions of dollars for Johnson customers.

Carrying out this policy has also resulted in the closest possible working relationship between the Johnson organization and the nation's consulting engineers and architects, in a joint effort to provide ever better control of thermal conditions.

Many Johnson "Firsts"

The history of the thermostat and the Johnson Service Company coincides with the period when other pioneers were busy introducing innovations in heating, cooling, and ventilating methods and in developing full-scale air conditioning. Working closely with the research staffs of these manufacturers, Johnson engineers were able to supply the most effective controls for every new development in basic equipment. This cooperation has continued and flourished to the present.

Over the years, the Johnson Service Company has been the source of a never-ending flow of new ideas, which have included virtually all of the key developments in the field of automatic temperature control!

By far the most important was the all-pneumatic control system, perfected in the 1890's and still the standard everywhere. Others include the all-metal thermostat, the famous *Dual* or day-night thermostat, the heating-cooling thermostat, summer-winter thermostats, the airstream thermostat, master-submaster thermostats, supersensitive gradual-acting thermostats, and powerful piston damper operators.

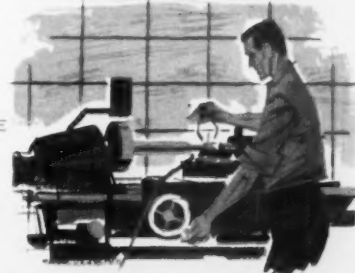
Another famous development was the Humidostat or humidity regulator. And, of course, the Comfostat, an exclusive Johnson instrument that controls room temperatures in relation to humidity conditions. The popular pneumatic control center, for centralized supervision and control of modern air-conditioning systems, also was first perfected by Johnson.



DESIGN



MANUFACTURE



INSTALLATION



SERVICE





Uninterrupted Progress

As the concept of controlled environment gathered momentum, so did Johnson. Important "firsts" became routine jobs, as the industry looked to Johnson for the answers to new control problems. From the simple comfort needs of the buildings of the 80's and 90's, to the history-making demands of the first scientifically air-conditioned building, down to the most complex requirements of today's commercial and industrial buildings, Johnson has been the leader in the pneumatic temperature control field.

Today, no matter where you go, you'll find the important buildings are equipped with Johnson Control. From the fabulous Fontainebleau Hotel to the mammoth Merchandise Mart to the famous UN Secretariat Building . . . in hospitals, in sprawling defense plants, in research laboratories, in vital military installations, in shopping centers, in buildings of every size and type and in ships at sea . . . there are temperature and air-conditioning control systems by Johnson.

Johnson's work in the school field is especially noteworthy. Since the invention of the first schoolhouse control system over 75 years ago, Johnson has helped plan and has installed control systems in more school buildings than the rest of the industry combined!

Johnson Today...and Tomorrow

To make certain that each installation performs up to expectations, Johnson backs its engineers with the most complete line of pneumatic temperature, humidity, and pressure control equipment in the industry.

To serve you most efficiently both before and *after* a sale, Johnson maintains the largest and most experienced field organization in the industry, with 107 completely staffed branch offices in the United States and Canada, plus full-time, factory-trained installation and service mechanics in over 200 other cities.

This is by no means the end of the story of the thermostat. For against this unmatched background of innovation, experience, and service, Johnson's never-ending search for new and better controls will inevitably lead to dramatic new ideas in the years ahead. As the day of completely air-conditioned cities approaches and as new and unprecedented demands for precision controls evolve, the forward-thinking Johnson organization will always be ready with the right answers.

The Johnson research and development staff and facilities have been expanded three times in the past four years. And final plans for the next major expansion are already underway! In the future then, as in the past, you can continue to look to Johnson for the world's finest controls!

Johnson Service Company, Milwaukee 1, Wisconsin. In Canada: Johnson Controls Ltd., Toronto 16, Ontario.



JOHNSON CONTROL

PNEUMATIC  SYSTEMS

DESIGN • MANUFACTURE • INSTALLATION • SINCE 1885

LOOKING FORWARD

The Wall Is Getting Thinner

THE federal barrier between church and state is being worn rather thin these days. In fact, some people believe that holes have been punched in the wall by the federal school lunch program and by the National Defense Education Act.

Now comes Sen. Wayne D. Morse (D.-Ore.) with a new assault — a determined effort to get federal loans to be used by religious groups for the construction of schoolhouses. His efforts came close to success just a short time ago when he garnered 37 votes for an amendment to Senate Bill No. 8.

Eight other senators co-sponsored the amendment, which would have authorized \$75 million annually for two years in loans to nonprofit private schools for construction purposes. The proposal lost by twelve votes, the ratio of defeat being 49 to 37. The rate of interest proposed was 2½ per cent per year and the range of loans was not to exceed 40 years.

Emulating Senator Morse's example in the Senate, Representative Pucinski (D.-Ill.) proposed in the House education committee (February 24) a plan for loans to nonprofit private and parochial schools for classroom construction. The amendment was rejected by a vote of 18 to 6. These efforts were repeated a short time later (March 1) in the same committee by Rep. Edgar W. Heistand (R.-Calif.). His amendment lost, 14 to 9.

IS SCHOOL LUNCH A WELFARE OR EDUCATIONAL ACTIVITY?

Direct federal aid to parochial schools for their *school lunch program* is justified by its protagonists on the assumption that it constitutes a welfare service to the child and is not an educational activity. Others argue that the school lunch is an *educational* program and federal school lunch money is, in a sense, supporting the nonpublic school. This attitude is reflected by 30 states which refuse to act as liaison between the U.S. Department of Agriculture and local private and parochial schools in the operation of the school lunch program. Because of constitutional or other legal limitations, or because of policies determined by state agencies, these states stay out of the picture; consequently, the federal reimbursement for school lunch programs in parochial schools is a direct federal-local operation.

This dichotomy has produced a bit of double talk by individuals who strongly support the federal lunch program but oppose federal money for nonpublic schools. When the school lunch is operated in the public schools, they say it is an *educational* activity serving to develop good eating habits, social graces, and an understanding

of nutrition. Therefore, the school board is justified in spending funds for cafeteria equipment and personnel. But when the same operation takes place in a church sponsored school, they say the school lunch is merely feeding the child for his own *welfare*.

We'll recognize that school feeding in most public schools is more "welfare" than "education," but let's take a closer look at this welfare argument. How far can the word be stretched? The several states that provide *free transportation* for pupils attending nonpublic schools also insist that the service is only for the child's welfare, and yet it is this free transportation that enables parochial schools to survive in some rural areas.

By the same rationalization, the "welfare" of the child would justify federal funds for parochial and other private school construction, because without a building the child would be standing in the rain or suffering from too much sun. Sheltering the child is as important as feeding him. How far can lawmakers stretch the word "child welfare" and still deny that educational values are not included?

NATIONAL EDUCATION DEFENSE ACT DIRECTLY SERVES CHURCH SCHOOLS

The "welfare" argument cannot be used, however, to justify the manner in which the National Defense Education Act actually has penetrated the state-church barrier. Under Title III of the N.D.E.A., loans are made to nonprofit private schools for materials and equipment for sciences, mathematics or modern foreign languages. These loans go directly from the federal government to the local private school.

Another direct service of the federal government takes place under Title V which provides for aptitude and ability testing of pupils in both public and nonprofit private schools. More than half of the states will not or can not administer this testing program in private and church schools because of legal or policy limitations. Here, without question, is direct federal administration of an educational activity in parochial schools.

If you have definite convictions about the granting of federal funds for the building of parochial schools, you will want to study the arguments by Senator Morse. He insists that "when the money goes to the education of our boys and girls, there is no conflict with the traditional doctrine of separation of church and state."

The Oregon senator completely sidesteps the fact that the education of children in parochial schools in-

cludes the indoctrination of religious beliefs. In fact, this is one reason for the existence of parochial schools.

He seeks to establish the premise that private schools are an integral part of the educational system of this country, and, therefore, should have public help. Senator Morse completely ignores the fact that private and parochial schools are not subject to control by public agencies representing all citizens and taxpayers. He uses the old argument that private schools are saving the taxpayers millions of dollars by providing and maintaining more than 170,000 classrooms. He also points to the college housing program as having set a precedent of government loans for residence halls in church affiliated colleges.

"Loans can easily lead to grants," warns the Unitarian Fellowship for Social Justice. A resolution by its legislative committee, published in a newsletter of the Baptist Joint Committee on Public Affairs, quotes the Unitarian attitude as follows:

"The Morse amendment to the school construction bill violates the spirit of the Constitution because it would use the government's financial facilities to aid religious schools at the level of compulsory school attendance. The government has never before gone so far in the direction of aid to parochial schools, and we believe that this creates a dangerous precedent. Loans can easily lead to grants, and soon the taxpayers may be asked to pay all the expenses of sectarian schools."

The National Lutheran Council, representing eight church bodies with a 5,400,000 membership, unequivocally opposes federal aid for the construction of nonpublic schools on elementary and secondary levels. Such aid, states a resolution adopted at its recent annual meeting, "is clearly a form of tax support for sectarian instruction."

We offer two conclusions:

1. The granting of federal loans for the construction of parochial schools solves no problem. Loans for the building of *public* schools are equally futile. Merely *loaning* money to a man or an agency that is desperately in need only creates a bigger headache for the next generation. Federal loans for building schools, regardless of whether they go to private or public institutions, only postpone a settlement that will be even more difficult in years to come.

2. The big question is: Can Uncle Sam grant money to churches for the construction of parochial schools and still not violate the principle of church and state separation? This principle is a prerequisite to our guarantee of religious freedom. The nation now faces a severe test of this principle, because it appears probable that a considerable amount of *federal* money will soon be invested in our public school system. Thus, the competition between the public school and the parochial school is sharpened and intensified, and parochial interests are fighting almost desperately for what they believe to be fair, namely, a proportionate share of federal funds for the parochial school program.

The issue of the moment is: How long can this nation continue to *compromise* the principle of church and state separation without eventually *capitulating*? Most barriers are crumpled by slow erosion and minor breaks, and not by direct assault.

That Regrettable Lag!

THERE is still much room for improvement in school building planning," concludes the jury of three educators and three architects who selected the almost 200 entries of school plans exhibited at the 1960 convention of the A.A.S.A.

These patient judges, who literally spent days and nights going through hundreds of entries, register a note of disappointment in their joint statement, "The 1960 Exhibit in Perspective" — a disappointment that schoolhouse planning should lag so noticeably.

"There are still buildings that are just a series of classrooms with a multipurpose space attached, just a mass of materials with little reflection of a conception of human qualities," states the report. The judges continue: "These buildings are planned for an educational program that might well have been conceived 20 years ago, without recognition of what we now know about how pupils learn, how teachers teach, and what the requirements of the curriculum are likely to be." These designs, they say, "don't fully recognize the potentials of the technological world in which we live. . . . The culture has been moving forward. The schools should move with it."

On the bright side, the jury finds "some evidence in the buildings that teachers, school board members, administrators and architects are giving a great deal of attention to the findings from recent research, to new developments in teaching equipment and materials, and to the adaptations that are inevitably coming in the instructional program."

For a fascinating description of some of these inevitable changes in schoolhouse planning read the Editor's interview with Harold B. Gores, president of Educational Facilities Laboratories, Inc., (p. 74).

Spotlight on Junior High

IS THE junior high school floundering? Some honest and competent observers think so. They say it imitates the senior high school too closely, and that its departmentalization removes the child from the effective guidance of a regular classroom teacher. They charge that the academic achievements are not up to par, and that the extra cost of the junior high school organization is not justified. These arguments are backed with evidence by a California superintendent in an article this month, "The Junior High School Is a Poor Investment" (p. 78).

. . .

DON'T MISS Jim Spinning's "On the Shelf" (p. 138). The sage from Rochester is at his best as he tangles with Myron Lieberman, the iconoclast author of "The Future of Public Education."

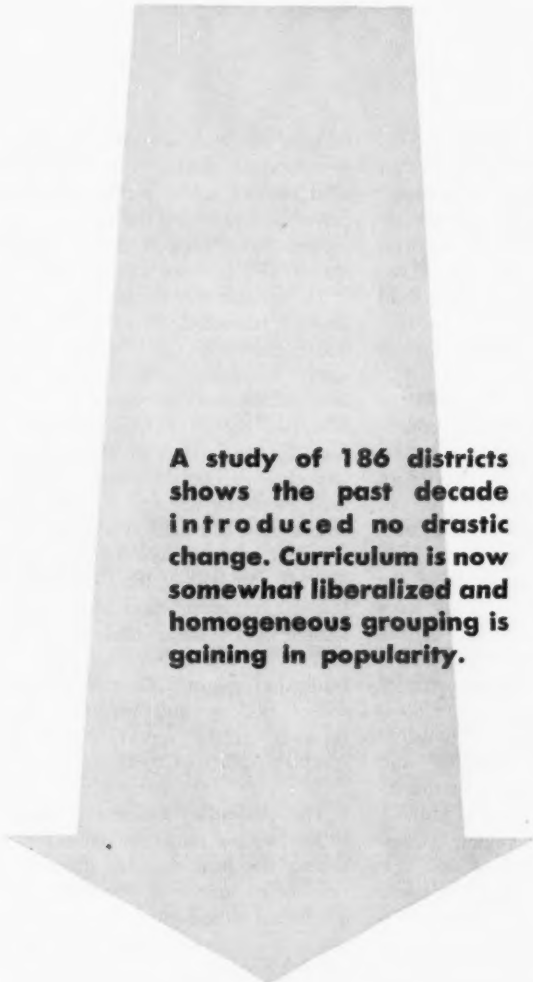
The Editor

1950

Elementary Schools Changed

Only a Little During

Fabulous Fifties



A study of 186 districts shows the past decade introduced no drastic change. Curriculum is now somewhat liberalized and homogeneous grouping is gaining in popularity.

HAROLD G. SHANE

1960

DURING the 1950's American public education was the object of vigorous and widespread criticism and attack without parallel in our history. Instructional methods and the quality of learning often were viewed with alarm, and the values and objectives of the schools frequently were berated with vehemence. After 10 years of this widespread discussion it has become not only a matter of interest but also of importance to assay the effect which the Great Debate over education has had on school administrators.

How have the criticisms of education influenced the point of view and the values of school administrators during this crucial period? Have the allegations that we are producing a generation of ill-informed youth, deficient in purpose and in character, acquired the force of truth? Have they sent our education leaders in panic-tinged retreat toward a revival of the elementary school curriculum practices and the narrower concepts of education that prevailed 35 or 40 years ago?

An extensive survey of elementary school practices at the beginning and at the end of the 1950's indicates that the Great Debate apparently has reaffirmed the faith of a

1950

1960

'Educators do not favor progressive education of the 1920 vintage. Instead they have accepted a hard core of tested modern practices that promise to elevate the schools with respect to humane developmental learning concepts.'

large majority of our superintendents in the basic soundness of the design of present-day public education.¹ Furthermore, these administrators reflect a desire to see that all American children continue to experience enriched "liberal" programs rather than academically "conservative" instruction, which merely stresses mental development.

At the same time, it should be clearly understood that U.S. educational leadership, as sampled in our study, did not favor the more thoughtless, 1920 vintage type of "progressive" education. Instead, these administrators seem to have engaged in a great reappraisal of the functions of the schools. They have discarded certain ideas they believe proved wanting and have accepted a hard core of tested modern practices that promise to elevate our schools with respect to humane, developmental concepts of teaching and learning, and with respect to the increased academic progress of pupils.

How were the changing educational practices inventoried and how were the superintendents' opinions obtained? Last year 277 administrators were invited to answer an 84 item questionnaire on how certain educational practices and conditions had been modified in their school districts between 1949-50 and 1959-60. The 183 respondents included 29 superintendents selected as "nationally recognized leaders" in the U.S. as a whole and 154 administrators chosen as a random sample in the state of Illinois. The 84 questions pertained to the curriculum, reporting, honors and awards, activity programs, grouping for instruction, testing, promotions policies, and educational goals.

These administrators were asked to indicate changes in policies and pro-

cedures that they wished to retain or to introduce during the Sixties. A total of 183 useful replies were received and provided the basis for this report. More than 2 million pupils are enrolled in these 183 schools.

To increase the significance of the answers tabulated, 29 out of the 183 questionnaires were checked separately. These 29 questionnaires were returned by selected superintendents who had earned nationwide reputations for leadership in educationally important school systems, through their extensive writings and the high offices they had held in national professional organizations. This group of 29 will be called the "established leadership group," and the random sample of 154 administrators in Illinois will be called the "general leadership group."² Only elementary school policies and practices were surveyed in the report, which was completed early in 1960.

The elementary curriculum actually has become somewhat more liberal during the past decade, although a number of critics of education have advocated more formal and more academic curriculum designs. The trend toward teaching related subject matter in relationship (for instance, combining or correlating separate classes in history and geography as "social studies") has continued to find wide acceptance. Superintendents also reported that rigidly prescribed courses of study were less common than was the case a decade ago. Consequently, the use of more flexible types of teaching guides has increased.

There also has been a substantial increase in lay participation in curriculum development, with parents and other citizens invited to discuss and to plan more completely with faculty members the general nature of the instructional offerings.

¹The data reported here were gathered with the assistance of William D. Lewis and Marvin O. Garlich. Funds for the study were provided through the Department of Psychology-School of Education research program at Northwestern University, a project supported by the Carnegie Corporation.

²A number of distinguished superintendents were in the general leadership group, too, but this was due to chance rather than to design.

The smaller group of established leaders indicated that there was a sustained effort in their school systems to increase and extend the enrichment and recreational opportunities provided for children, although such provisions had sometimes been attacked as frills. Of equal or greater significance was the fact that superintendents in the general leadership group indicated a definite increase in community provisions to expand nonacademic experiences provided for children.

Insofar as the survey sample was representative, it may be inferred that few schools have thus far made any effort to cut back their special offerings in the arts and in recreational or sports activities in order to make elementary education more subject matter centered.

In addition to descriptions of present policies, the administrators were invited to describe future plans for curriculum change. Here they aspired to put into effect well balanced programs that emphasized the total development of the learner rather than mere intellectual growth in subject matter fields. Only three superintendents out of 183 said that their schools should be concerned solely with academic progress. The remainder, including all of the nationally known leaders, hoped that in the Sixties their schools would accept more rather than less responsibility for the social, emotional and physical development of pupils.

The long standing controversy over ways of reporting pupil progress continued to flourish during the period covered by this survey. A number of writers of this era said that formal reporting of the A,B,C, or the percentage type of grades was desirable, presumably to let parents know how their child fared in comparison with his classmates.

In the school districts surveyed, formal report cards with A,B,C marks

held their ground during the 1949 to 1959 decade, but there was no sweeping or general movement to restore this type of grading. Whereas 106 of the schools in the general sample employed formal report cards, 107 did so in 1959. The major conservative trend was reflected in a number of the 107 schools that had reintroduced A,B,C marking in the first three grades.

Among the 29 school districts administered by established leaders, three had returned to the use of conventional reporting in Grade 4 and above. The most that can be said with respect to public pressure for the use of formal reporting policies is that the trend away from the use of A,B,C grades apparently faded but did not reverse itself in the Fifties.

Although it might appear that informal reporting practices were declining, a marked increase in the liberal practice of reporting pupil progress through parent-teacher conferences was observed. While less than one-third of the schools in the large general sample made use of report conferences in 1949, nearly two-thirds of these 154 districts scheduled such conferences last year. In short, while the nature of report cards seems to have changed but little, a distinct effort has been made to interpret pupil progress to parents through direct contact with teachers.

In the future, the administrators polled believe that elementary schools should plan to make even greater use of carefully designed conferences, plus supplementary letters to parents

in which a pupil's academic progress, personality characteristics, and social relations are interpreted and discussed.

Educational leaders do not seem to have been swayed during the Fifties by the critics' demand that our elementary schools be made more competitive and that increased use be made of awards and honors to motivate pupils to greater effort. Returned questionnaires indicated that about 50 per cent of the 183 systems had encouraged competitive academic practices in 1949, but such intellectual olympics declined slightly over the intervening years.

A small minority of the administrators in the established leadership group believed that competition might be increased slightly. But in neither group was there any marked sympathy for the severe academic competition ingrained in many European educational systems, which base admission to college preparatory programs on national examinations.

In 1949, such academic awards as merit certificates, honor roll listings, and scholarship medals were rarely granted at the elementary level in the 183 schools, and the increase in the use of such awards was negligible in 1959. About half of the superintendents accepted the premise that children's satisfaction in a job well done was a sufficient reward.

Insofar as future policies were concerned, two out of three administrators believe that in the Sixties each child

(Continued on Page 146)



Harold G. Shane is dean of the school of education at Indiana University. Dr. Shane began his education career in Ohio. From 1935 to 1946, he was an elementary teacher in the Cincinnati public schools, teacher and then principal of Ottawa Hills Elementary School in Toledo, state supervisor of elementary education, and assistant professor of education at Ohio State University. Dr. Shane was superintendent of schools in Winnetka, Ill., from 1946 to 1949, and then served for 10 years as professor of education at Northwestern University. He has written 30 books including "The American Elementary School" and "Beginning Language Instruction."

An interview with HAROLD B. GORES
President, Educational Facilities Laboratories, Inc.
by Arthur H. Rice

Here Are Some Factors

THE FIVE-YEAR PROGRAM of Educational Facilities Laboratories, Inc., got under way in September 1958, when full-time direction of the program was assumed by Harold B. Gores as its president. Now, with one-third of its allotted time having passed, E.F.L. reports 43 projects in operation. The \$4.5 million appropriation from the Ford Foundation set up E.F.L. as an independent nonprofit organization to conduct research and experimentation for the improvement of school and college facilities. In keeping with this purpose, current studies include examination of post-World War II school buildings in Chicago, feasible rehabilitation for 22 old buildings in Detroit, school fire tests in Los Angeles, development of shared occupancy and convertible schools in New York City, and new designs for a high school addition in San Diego. Other studies include an elementary school design for team teaching at Greenwich, Conn., a divisible auditorium for a high school in Boulder City, Nev., multipurpose space in elementary schools in Hawaii, and projects with 10 institutions of higher learning and three national associations. Out of this research and experimentation, President Gores has derived some conclusions as to the direction that schoolhouse planning and educational specifications should take. In this visit with the editor, he answers some questions of the hour.

You have noted that a major upheaval in formal education occurs about every 30 years. What major readjustments are in progress now as we enter the 1960's?

In the current cycle of upheaval and rearrangement, five changes, among many, come immediately to mind:

1. The role of the teacher will change from that of a general practitioner who meets with a standard class of children all day to that of the specialist who will act as counselor for individual study, a leader of small seminar groups, a teacher at times of standard classes, or a lecture-discussion leader for classes of 100 or more. Such a rearrangement should produce more sensitive instruction for more children and provide more satisfying roles for career teachers.

2. Readiness will become the basis for determining when a subject is offered; not, as now, when cultural habit dictates.

3. Premium will be placed on malleable interior space, rearrangeable at will and at once.

4. Year-round education will come to be the norm for most pupils, especially the brilliant and the slow.

5. Pupils will be "phased into" school when they are ready to profit from schooling, and they will be "phased out" as individuals when the school certifies that they are ready to take their place in the world of work or in the next higher institution of learning.

What pressures and trends are affecting the nature of schoolhouse design?

Judging from the kinds of questions I am asked about schools, I would list the following among pressures that are influencing school design:

1. Where air conditioning is being designed into the

HAROLD B. GORES brought to E.F.L. the experiences of a teacher, principal and superintendent. In fact, many of the ideas finding expression in E.F.L. research originated in his own planning and experimentation while in charge of the schools of Newton, Mass., where he was superintendent for nine years and assistant superintendent for six years. He went to Newton in 1935 as a teacher, after earlier teaching experience at Littleton and Lexington, Mass. A native New Englander, Mr. Gores attended Bridgewater State Teachers College and then Harvard University, from which he received his doctorate. He is a faculty associate at the Harvard Graduate School of Education.



That Affect Future Schoolhouse Planning

building there is pressure to reduce perimeter and to reduce the use of glass.

2. In the design of large high schools I see the influence of a school-within-a-school and house-plan organization, bringing about a clustering of space.

3. In all secondary schools I see the striving for spaces of varying sizes.

4. More concern is being expressed about equipment and the intention to spend a larger portion of available funds for it. Language laboratories and science equipment are getting the big play at the moment, with some of the larger schools making provision for closed-circuit television. As soon as someone comes up with well programed teaching machines for the verbal subject fields, the pendulum may swing away from science and languages toward all the subject fields, including the humanities.

5. Some of the big cities are beginning to raise the question as to the wisdom of joint occupancy of space. At present New York City is contemplating a commercial high school in which some of the space may be occupied by a compatible private business. It is also exploring the notion that a school building may be part-school and part-housing. Some of the largest cities have planned buildings that would convert with ease to purposes other than education, should the character of the neighborhood change. Transportable space as permanent policy rather than, as historically, a temporary stopgap is a lively topic.

6. Another pressure, mostly unseen as yet, is the growing revolt against the blandness of environment that characterizes so many of our schools. The indestructible, antiseptic, kitchen atmosphere of classrooms is being softened by providing surfaces and appointments that are more humane, that have texture, that yield, in contrast to the hard, cold and slippery surfaces we now provide. Even the floor is becoming a source of concern to some quite sensitive school planners. What the floor will become, it is too early to say, but already we know of some places where an insulative and acoustical floor covering is being tried.

How can we get a logical comparison of school construction costs?

I am not sure we ever will so long as communities vary in what they desire for their children. The problem would be simple if we could agree upon a standard definition and a standard process of education, but such agreement is dependent on there being a standard community in a standard culture. And America is anything but standard as to its climate, its economy, and the aspirations of its various regions toward their children.

Public pressure for side-by-side comparison of schools is diminishing, and this is all to the good. The situation will correct itself as soon as the public gauges the worth of a schoolhouse by its performance and not just its permanence. Comparisons are relatively easy to make as long as the criteria are confined to initial cost, maintenance, replacement and permanence. But add the criterion, "How does the building act?" and we are forced to a higher ground. Only then will we be able to distinguish that which is truly economical from that which is simply cheap.

Why are so many schools planned without adequate educational specifications?

Everyone is dismayed at the state of educational specifications these days, but there is an explanation, if not, indeed, an excuse. Many schools are planned in an atmosphere of crisis. A community may argue for years as to whether there will be a school, but once the money is committed people expect the bulldozer to be on the site the next Monday morning.

The squeeze on time for planning militates against the drawing up of good educational specifications. And further, many a school is described solely by formula and index numbers, *e.g.* divide the elementary school enrollment by 30 and you have the number of equal-sized classrooms re-

'Year-round schooling will come about in the near future, and the education of 4 year olds will seem as natural as it does with 5 year olds today'

quired; multiply the standard classroom area by 1.5 for the size of the kindergarten; divide the total enrollment in half to get the size of the auditorium; arrange the boxes along the corridor according to the dictates of the site, and so forth. An architect told me that he received the educational specifications for a school over the telephone.

Until fairly recently, description by formula was acceptable practice since uniformity, rather than diversity, has been the great overriding characteristic of our schools. Formulas produce uniformity. But nowadays school boards are beginning to exercise their autonomy and their freedom to depart from stereotype. The notion of the self-contained classroom is being challenged on every hand. The newer schools are providing variant spaces to accommodate groups of varying sizes. The Chicago Teachers College, for example, will provide spaces for individual study, for seminar groups, for standard classes, for lecture-discussion groups enrolling a hundred or more, and for an auditorium divisible at will and at once for even larger groups.

As schools seek to find ways of teaming their teachers, of offering instruction to groups of other than standard class size, of using language laboratories and other audio-visual equipment to speed learning, the educational specifications become more important, and, alas, more difficult. But one thing is clear: The next move is up to the educator, not the architect.

What is the essence of team teaching? What does it require in school plant design?

Team teaching, as the name implies, is the rearrangement of teachers, pupils, subject matter, time, space and, in some instances, compensation, to the end that the school is free to choose the circumstances under which children will learn. In medical analogy it means that teaching will be thought of more as the act of a team of specialists and less as that of a series of general practitioners. When teachers and pupils are rearranged according to whatever is the academic task at hand, the immediate response is "give us a variety of spaces—some large, some small." Many schools are clamoring for a retractable wall to provide divisibility of space at will and at once. We can expect that such a wall will be on the market within a year and that it will be reasonably priced and acoustically acceptable.

Team teaching has existed for several years in a number of high schools. Recently, though, a number of elementary schools are acknowledging in their design the desire to rearrange faculty and students in a manner other than the solitary teacher in his solitary room where he must be all things to all children all day and all year.

The rearrangement of students and teachers provides many benefits difficult to achieve under conventional arrangement. For example, when the teacher is part of a team he has special responsibility for possessing knowledge in depth about a particular matter. He is encouraged to a sense of scholarship, of expertness, of pride in knowledge, which his role makes visible and rewardable. The furor over merit salary systems erupts in part because of the side-by-side comparison of persons performing the same act. But where teachers have distinguishable roles that can be evaluated—where the jobs, not the people, can be sorted—some method of rewarding outstanding people begins to come within our grasp.

What changes are imminent in the junior high school?

Of all the levels of schooling, the junior high school is most in need of attention and help. After all, the junior high school is only about a half century old and in its short life has had to confront social changes more disruptive to it than did either the elementary school or the high school. Just as the high school is fast becoming more collegiate in its spirit and arrangements, so is the junior high school having to find ways of becoming secondary rather than elementary in spirit and organization. The eighth grade, especially, is undergoing a fundamental change in subject matter.

The junior high school as an institution is well worth saving. But it needs help from all of us. In some quarters there is even discontent with the name "junior high school," and the name "middle school" is being suggested. At the moment the junior high seems to be less experimental in spirit than either the high school or the elementary school.

When will our elementary education include the 4 and 5 year olds?

Many communities include the 5 year olds in kindergarten as a matter of routine. A few school systems take in the 4 year olds in nursery school classes, held in space

made available in elementary schools. Some schools provide only the space and rely on the parents to pay tuition sufficient to meet the cost of staff.

It seems likely that toward the end of the 1960's space will open up in many elementary schools, particularly in communities not now undergoing rapid growth. At first, the 4 year olds probably will not be taught at public expense but will nevertheless be housed in the elementary school. But it would not be surprising to find that within a generation the education of 4 year olds will seem as natural as did the education of 5 year olds in the kindergarten movement of three generations ago.

What use of the school plant should be made in the summer?

The days are gone when a schoolhouse could be vacant for all but a thousand hours a year. Year-round schooling for many, and eventually most, will come into general acceptance. This does not mean year-round education in the so-called four-quarter plan, a device for flowing more pupils through available buildings without increasing the length of their school year. The test of the school is how much learning takes place and not how many pupils pass through the premises.

Can schools use action research to bring about improvements in school plant design and maintenance?

Without question school districts can save money by so-called action research. Just as schools are in the habit of testing the academic achievement of their students, so would equivalent evaluation of physical facilities be profitable. As a starter, what about allotting 1 per cent of the operating budget to examination, appraisal and experimentation?

Business and industry allot sums for research as a matter of routine. Only in public enterprise, of which the schoolhouse is the major one, has it seemed acceptable not to spend money for looking at the product. And this is understandable. The time and energy of many school systems are totally consumed in the pursuit of the next school, not the examination of the last one. The Chicago public schools, with the help of Michigan State University and E.F.L., are now midway in just such a study, the examination of 110 school building projects undertaken by the Chicago schools since World War II.

How can we get adequate evaluation of new school building projects, so that some of the lessons learned can be shared universally?

Adequate evaluation goes to the heart of the matter, yet I believe it is not the first consideration. Many a promising experiment has died at birth because the interminable argument over how to evaluate has resulted in no action being taken in the first place.

What we need most of all, and right now, are prototypes launched by thoughtful people who proceed on the assumption that reasonable ways of evaluation will become apparent as and after reasonable action has taken place. The habit of always insisting that no change be made until a complete research design is agreed upon has been largely responsible for the general lack of ferment characterizing educational design for a generation.

Once we have the prototypes — and they are now coming fast — we need more sensitive reporting. The professional and architectural journals will, of course, have to carry the major burden in this respect. In a modest attempt to back up the line, the Educational Facilities Laboratories, Inc. has begun to issue profiles of a number of schools (and elements thereof) which depart from the conventional equicellular arrangement of interior space. These profiles will attempt to go deeper than the "I Built a School" type of article.

What form the evaluation takes, it seems to me, will flow from the total setting in which the experiment is based. It is not uncommon in education to discover that an experiment succeeds because the people involved want to make it succeed. The same experiment transferred to a different and hostile setting may be doomed to failure. The situation is not unlike that of a friend of mine who works for a bridge company. When I asked him how one sells a bridge, he replied, "You can't sell a bridge. A man's got to want one."

In sum, ways to evaluate will suggest themselves once the experiment is launched. The subject of E.F.L.'s first profile, the new high school* in Wayland, Mass., is a case in point. Wayland decided that it should have a high school that would be collegiate in spirit. The community has acted to create such a building for occupancy next September. Whatever lesson for all of us there is in the building will depend on whether the building helps or hampers what its planners were striving for in behalf of the children of that town. It doesn't have to be the right answer for every town to be the right answer for Wayland. ■

*See story about this new high school in Wayland, Mass., on page 83. A painting of the campus, reproduced in four-color process, is displayed on the cover of this magazine.



THE SELF-CONTAINED CLASSROOM does not eliminate homemaking, shop and music from the seventh and eighth grade programs. On the contrary, the teaching of these subjects can be more meaningful in a nonjunior high school program, such as in these classes in Torrance, Calif. The regular teacher works with the special teachers to relate the practical arts to the remainder of the child's school program.

THE JUNIOR HIGH SCHOOL

J. H. HULL

Superintendent, Unified School District, Torrance, Calif.

WHETHER we like it or not, today the emphasis (by public interest and public demand) is on scholastic achievement in all our schools. With this we must be concerned. There never was a better time to examine the expenditures for junior high schools than in such an atmosphere.

That this is a problem of much concern is shown by the action of the 1959 California legislature. It directed the state superintendent of public instruction to report in January 1961 as to "whether the education provided for seventh and eighth graders by the departmentalized system is superior to that provided by the self-contained classroom system." If the departmentalized system is judged superior, the legislature also wants to know "whether the degree of superiority of the departmentalized system is great enough to justify the

excess cost of maintaining such a system."

By the self-contained classroom we mean a classroom in which a teacher teaches all subjects to all the students, learns to know them and their particular problems, and is the contact between the school and the home for guidance, reporting and instructional emphasis. The student must assume more responsibility for his daily conduct when he must live cooperatively in the classroom with his fellow students and the same teacher all day long. This is important citizenship training.

Committed to the Junior High

Once the community has invested in junior high schools, teachers and administrators are duly bound to do their best to make such schools look good. But the odds are against them.

Let's examine a typical junior high

school program and see if it doesn't include the following elements in some degree:

1. Teachers more concerned with subject matter than with children. (They have to be when meeting 150 students per day.)
2. Teachers who want to be senior high school teachers.
3. Poor teachers who have been demoted from the high school.
4. Some good teachers, but trained in elementary education.
5. Teachers marking time until they can get a better teaching job.
6. Parents, teachers and administrators going along with an "ape the high school" program, even to competitive interscholastic sports.
7. Many teachers who can't handle disciplinary problems even in their special subject areas.
8. The student body almost out of control.



OPPOSITE PAGE: Sewing a skirt (left) is the individual project of this Torrance student, who is being supervised by a homemaking teacher. Wiring circuits (right), typically found in a house, are explained by a shop instructor in teaching household safety. **ABOVE:** Seventh grade girls (left) bake cookies in homemaking class. Setting table (right) is a necessary preparation in class luncheon for principal and teacher.

IS A POOR INVESTMENT

9. Students aping high school students.

10. Students shuttled from room to room all day.

11. Students not really responsible to anyone in particular.

12. Teachers not responsible for any particular group of students.

13. Parents rather frightened with the whole, often ineffective, process.

14. The cost of education higher than it would be in a self-contained elementary program with poorer results. (This raises the cost of seventh and eighth grades to high school costs.)

15. Lost seventh and eighth graders hopelessly in a quandary.

16. A mass of students who have learned to go the limit with each teacher. They will arrive at senior high school with a crass and arrogant attitude toward teachers and school in general.

An honest superintendent usually admits, to himself at least, that his junior high schools are his biggest headaches.

Moreover, junior high schools cost as much as senior high schools with their special subject areas, lockers, showers, and gymnasiums representing a large capital outlay.

All these elements add up to a stupendous hoax on the profession. At the same time, the community is kidding itself into believing that it is giving special facilities and special attention to early adolescents in a special environment designed to meet their peculiar and particular needs of variety, movement, exploration and subject matter.

The typical junior high school program today neglects the fundamental fact that a child needs the security of an environment in which he is well established while he is getting

his physical and emotional growth. The problems of early adolescence make him awkward, scared, confident, timid, infantile and adult all at the same time.

The present junior high program puts this unstable child, at a most vulnerable period in life, in a situation in which he has to adjust to many new environmental changes daily, and then asks him to study effectively. He is shuffled around among strange teachers who don't really know him at the very time he most needs understanding adults in his life.

Because of sweeping changes in physical developments and emotional interests, the seventh grader has less in common with eighth graders, and the eighth grader with ninth graders, than do other age groups with their nearest chronological contemporaries. Let us compare their interests, their



INSTRUMENTAL music is taught Torrance students by teachers who visit each elementary school.

measurements, and their activities, and our eyes will really be opened. A single teacher might keep up with 30 or 35 students on an all-day basis, but never with 150 students on a period-a-day basis.

When junior high school teachers meet 150 to 180 students a day in special subject areas, what chance have they to get to know and understand them? These students need guidance from understanding teachers. One teacher who has 30 students all day gets to know their needs, and can work with their parents.

Cooperation between home and school is many more times complicated by the junior high organization, to the detriment of the child. What chance has a parent to find out what actually is happening when he has to contact five or six one-period teachers? The early adolescent needs a simple organization, only a few understanding people to deal with, and plenty of environmental security while he is working out his problems. This the junior high, in its typical organization, does not provide.

From elementary to junior high and then from junior high to senior high mean two adjustments, two new environments. The move is supposed to be a transition, but it's considerably more severe for a lot of serious students. To place this exploding group of immature youngsters in a crucible of constantly mixing and milling schoolrooms with no time to let teachers really know and guide them is the crime of the century.

Better, Cheaper Education

Communities with junior high schools should consider converting them to senior high schools, where needed, and building more elementary schools. It would provide a cheaper and better education.

After discussing the pros and cons of the junior high school, and considering the desires and wishes of the people of the community, the school board of the unified school district of Torrance, Calif., decided to use the K-8-4 plan, with a self-contained classroom in K-8. The plan includes teachers in instrumental music from the fifth grade up, and special teachers in practical arts at the seventh and eighth grade levels.

In 1949 we examined the 6-3-3, the K-8-4, the K-6-4-4, the K-6-6, the K-6-2-4, and various other types of organizations. We had John A. Sexson tell us about the Pasadena 6-4-4 plan but mostly we listened to what parents wanted in a school and studied what we wanted to try to do for children.

We listened to parents who had moved to California after living in junior high school districts in the East.

We listened to teachers who had worked with junior high school children in a 6-6 plan.

We observed departmental junior high schools in operation.

We observed that the better junior high schools had a core course in which one teacher had the same students for longer periods of time.

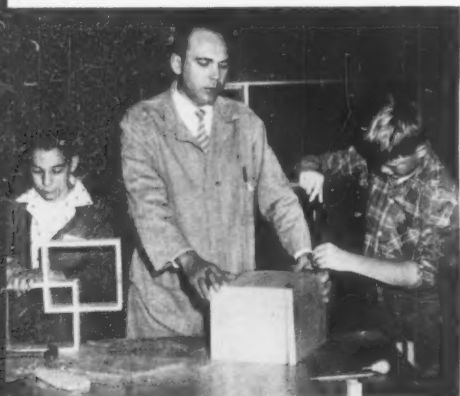
It's Not the Best or the Worst

Our investigation did not prove that the junior high school is the best or the worst school plan, but it did raise doubts in our minds that the junior high school, with 50 years of experience in the United States, has proved its superiority over other plans. The teacher still makes the school, rather than the organization. When we examined the training situation, we couldn't find any real, specialized source of teachers trained for junior high schools.

Fundamentally, the junior high school is too much a mass production operation; in contrast, the self-contained classroom actually provides each child with more individual guidance, attention, understanding.

The truth about junior high schools is the truth about any school. They are as good as their teachers and their leadership. The organization may be a help or a hindrance. Who knows? It is time we were finding out the real facts about them.

It is doubtful whether the junior high organization in itself will ever replace the importance of the relationship between the student and the teacher in producing scholarship. With its extra expenditures and poor results in those few cases in which actual statistical evidence is available, it should be realized that the junior high dream has not come to pass and is impractical.



WOODWORKING project (above) involving simple joints is explained to student at right, while another works on a shadow box with cross lap joints.

POWER TOOLS, such as drill press and jig saw (below), are used in shop program.



What Research Says About the Junior High School: Hull

AS FAR back as 1927 there was evidence that the junior high school was not living up to its promises. A comprehensive study by J. Orin Powers¹ compared instructional achievements in Minneapolis, where there were some new junior high schools, some old junior high schools, some junior-senior high schools, and other schools in an elementary school organization through Grade 8. The study revealed that "schools having the highest degree of departmentalization ranked uniformly lowest on standardized tests. . . ." "In a typical rank order of the groups compared, the nonjunior high school is the highest, the junior-senior high school organization is the lowest, and the new junior high and old junior high schools occupy positions between the high and the low."

Less Academic Subject Time

A study at Harvard University by Bancroft Beatley in 1932 found, as did the Powers study in 1927, that the junior high school takes time away from the academic subjects. This study entitled "Achievement in the Junior High School," Harvard University Press, 1932, found that there was no significant difference in academic achievement and that less time was devoted to the fundamentals of reading, language and arithmetic. The report came up with this interesting suggestion: "A more promising approach to higher standards of accomplishment in the fundamentals is probably to be sought in individualized instruction in the grades below the ninth."

Prior to the Powers study, W. A. Porter did a study² involving matched pairs of 400 junior high students. One of his conclusions was: "Insofar as differences appeared, the median achievement quotients of nonjunior high school pupils in Grade 8-A exceeded the median achievement quotients of the junior high pupils."

Three studies by Spivak³ compared the work of two groups of ninth grade students in a departmentalized junior high school. One group attended seventh and eighth grades in this junior high school, the other group had attended self-contained

classrooms for the seventh and eighth grade work. Forty-one matched pairs were compared, each having the same ninth grade teachers.

Children from the seventh and eighth grade self-contained classrooms showed more gain in reading and arithmetic and did significantly better in other ways than their classmates with the departmentalized seventh and eighth grade backgrounds. They made more friends, reported fewer school problems.

A study of 57 elementary school districts reported by Robert E. Browne⁴ showed a wide variety of offerings and organizations, but in general the trend was toward the use of large blocks of time. This use provided for good guidance programs and a unified curriculum approach.

Bernard J. Lonsdale,⁵ reporting on the characteristics of the program in Grades 7 and 8, states that "it was apparent in a number of the schools that a great deal of administrative effort had gone into attempts to narrow the range in academic achievement as the basis for grouping. No evidence was available that such attempts contributed either to increased academic achievement or to improved mental health of the pupils."

A study in 1945 at the University of Texas by Margaret R. Rouse concludes: "Unless departmentalization can be shown to have demonstrated values, continued agitation for the faulty assumptions of its supporters should be abandoned."

Fourteen Differences

This study found 14 statistically significant differences between the practices of departmentalized and nondepartmentalized schools. Each group of schools had seven differences in its favor, but only one of those favoring the departmentalized group was approved by specialists in elementary education, whereas all seven of the differences favoring the nondepartmentalized group were approved by the specialists.⁶

Roy C. Woods reports a comparison of two eighth grades, one departmentalized and the other self-contained, in two schools in the same neighborhood in West Virginia.⁷ The

departmentalized grade showed only 5.1 increase in equated score on the Stanford Achievement Test from September to May, while the self-contained classroom showed a 13.1 increase.

A research memorandum published in 1958 by the National Education Association, in studying the changed purposes of the junior high from 1920 to 1927, found that none mentioned scholarship as an aim and wondered why better scholarship was not mentioned as an aim in the junior high organization. At a time when excellence is considered to be one of the aims of education, an organization that does not emphasize scholarship should be scrutinized rather carefully for its weaknesses.

Junior High Organization

After reviewing virtually all of the literature available on the junior high, pros and cons, and departmentalization *versus* nondepartmentalization in the upper grades of the elementary school, it is clear to me that the better junior highs are organized more like the elementary schools with large blocks of time under the control of one teacher.

Practices of the better elementary and junior high schools are coming closer and closer together. No doubt, the junior high idea has contributed to some extent in improving elementary education, but no more than elementary education has contributed to improving the junior high. — J. H. HULL.

1. Powers, J. Orin: *The Junior High School*. University of Minnesota Press, 1927.

2. Porter, W. A.: *A Comparative Study of Scholastic Achievement Made by Certain Junior and Nonjunior High Pupils in Minneapolis*. Unpublished thesis, University of Minnesota, 1924.

3. Spivak, M. L.: *Phi Delta Kappan*. January 1957.

4. *California Elementary School Journal*. November 1959. Pp. 80.

5. *Characteristics of the Program in Grades Seven and Eight*, *California Elementary School Journal*. November 1959. Pp. 87.

6. Rouse, Margaret R.: *A Comparative Study of Departmentalization and Non-Departmentalization as Forms of Organization for the Elementary School Curriculum*. Doctoral dissertation, University of Texas, 1945.

7. Woods, Roy C.: *The Peabody Journal*. November 1959.

Conant Looks at the Junior High School

THE first report on my study of the American public high school was published a little over a year ago. What I set out to do in my study of the comprehensive high school was to answer one simple question. Did there or did there not exist in the United States one or more tax supported high schools which, in my opinion, fulfilled satisfactorily three functions?

These functions were: (1) to provide for the general education of all the youth in the community through required courses in English, social studies, and some mathematics and science; (2) to provide for meaningful vocational education in Grades 11 and 12 for those who desire to develop skills marketable immediately on graduation, and (3) to provide for challenging courses in mathematics, science and foreign languages for the academically talented.

I visited widely comprehensive schools with good reputations in a number of states and found schools that were satisfactory according to my view. Hence, I concluded that no radical reorganization of the pattern of American education was required, except for drastic district reorganization and school consolidation in many states where a large fraction of the boys and girls were attending high schools which were too small.

Studies Grades 7 and 8. My report dealt with the curriculum Grades 9 through 12, and I treated the four years as a unit whether the senior high school was a three-year or a four-year school. I no sooner finished my study of Grades 9 through 12 than I began to hear of new developments affecting Grades 7 and 8. Indeed, the changes were so many and so fast in the lower grades that one observer wrote of "The Dynamic Eighth Grade."

Preliminary report of James Bryant Conant, president emeritus of Harvard University, before two group sessions at the 1960 Atlantic City meeting of the American Association of School Administrators.

Therefore, it became evident that before I completed my final report I must have a look at what was going on in Grades 7 and 8. This I have been doing this school year with the assistance of Prof. Matthew Gaffney, well known to some of you as the superintendent-principal for many years of New Trier Township High School in Winnetka, Ill.; Franklyn O. White, on leave of absence as principal of Central Junior High School in Greenwich, Conn., and Alden Dunham, a member of my staff last year. Between us we have so far visited about 125 schools in 60 communities in 17 states and received 300 questionnaires addressed to junior high schools, which have been recommended to us in 200 communities in 30 states.

Makes Extensive Sampling. I personally have sampled opinion by talking to administrators, teachers and students in a variety of junior high schools. We have included elementary, junior high schools, and senior high schools in high-income suburban areas and in the large cities — thus covering a wider range of schools than in the case of my study two years ago.

Since I have not as yet completed this year's study and have not, therefore, reached any final conclusions, I shall report on a few of what seem to me rather important developments in the junior high school grades, and indicate what appear to be some problems in the organization of schools to handle these grades.

Grade 9 in Junior or Senior High?

First, as you all well know, we found a variety of organizations: 6-3-3, 8-4, 6-6, 5-3-4, 6-2-4, and even 7-1-4. Having listened attentively to the views of junior high school people who have spent their lives with young people I can form no clear opinion as to whether Grade 9 should be in a senior high school or in a separate junior high school. I should like to offer an explanation of the lack of consensus I found among experts.

Clearly no ninth grade is homogeneous as regards the maturity of the pupils — the ages alone cover at least a two-year span, and boys and girls of the same age do not all mature socially, physically and emotionally at the same time. Therefore, it would seem that some boys and perhaps many girls would fare better in terms of these "social" arguments (using the term in its widest sense) if the break between junior and senior high schools were between the eighth and ninth grades; others might fare better if the break were between the ninth and 10th grades.

It might be argued that purely pedagogic considerations point toward including Grade 9 with the senior high school, but I am not certain.

While I can find no overriding consideration to settle a controversy between the merits of a three-year and a four-year senior high school, I did hear many arguments in favor of an organization that provides an eighth grade of at least 125 to 150 pupils — an enrollment one usually does not find in the eight-year elementary school. And if you accept the conclusion of my first report that the 12th grade should have at least 100 students, the total enrollment in the ninth grade, however distributed among junior high schools, must be at least 125 students because of the inevitable drop-out. (Cont. on p. 118)



SCHOOLHOUSE PLANNING

WOODED TERRAIN surrounds this new high school at Wayland, Mass.

PLANNED VARIABILITY

characterizes the "collegiate" design of this new high school in Wayland, Mass. Campus of six interlocking buildings includes academic centers for arts, sciences, languages and social sciences, each staffed by a teacher team.

EDWARD ANDERSON,

Superintendent of schools, Wayland, Mass.

JOHN C. HARKNESS,

Partner, the Architects Collaborative, Cambridge, Mass.

INHERENT in the process of change is constant reexamination and the desire to develop new and improved methods of accomplishing objectives. In Wayland, Mass., the educational program is a current and vital area undergoing transition. As a result of efforts to provide a more effective system, new concepts have

emerged that will be put into effect in this new high school in the fall of 1960.

Wayland has grown from a population of 4400 in 1950 to 10,000 today. It has attracted business and professional people who are conscious of the importance of education in the world today, and who wish to provide

their children with the best available opportunities.

The planners devoted many months to programing the new plant. Of prime importance was the evaluation of the changes taking place within the educational system itself: the realization that all teaching experiences are not necessarily tied to the 1 to 30

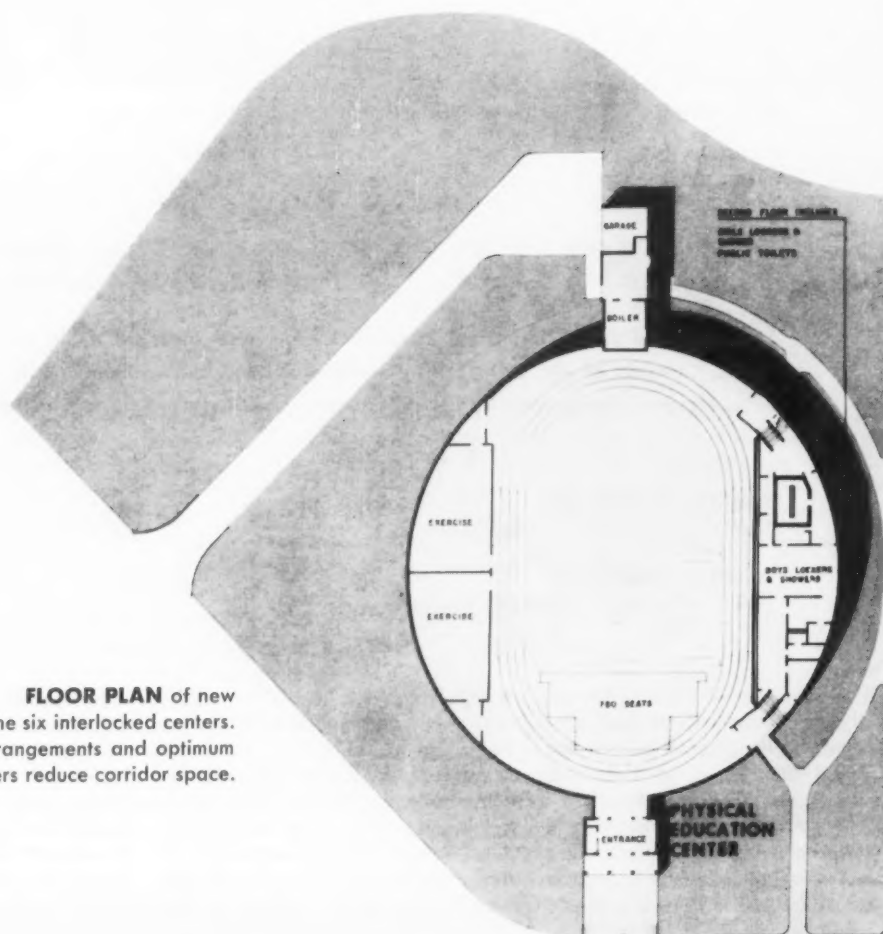
**'Departmentalization
is on the way out
and traditional
teacher-student ratios
are under fire'**

teacher-student ratio; that it is no longer practical for a single teacher to do the entire job in one area; that students are capable of covering more ground than before; that new media are effective teaching tools, and that there is a definite trend away from departmentalization.

Defines Three Aims of School

It was apparent that the institutional and impersonal "cells and bells" type of school, where from 30 to 35 children use the same room, the same text and prepare the same assignment, would not be the solution. Neither would the "totally flexible"

FLOOR PLAN of new high school shows the six interlocked centers. The arrangements and optimum size of the centers reduce corridor space.



scheme which by nature of its multi-use of spaces is expensive and not without acoustical drawbacks.

With these conventional schemes vetoed, the planners pursued a positive course to outline what they wished to achieve in their new school. Their aims were soon defined: (1) to encourage independent study by providing a highly individualized program, (2) to encourage creativity through familiarization with a variety of sources and materials, and (3) to encourage a purposeful application of knowledge through a cross fertilization of subjects.

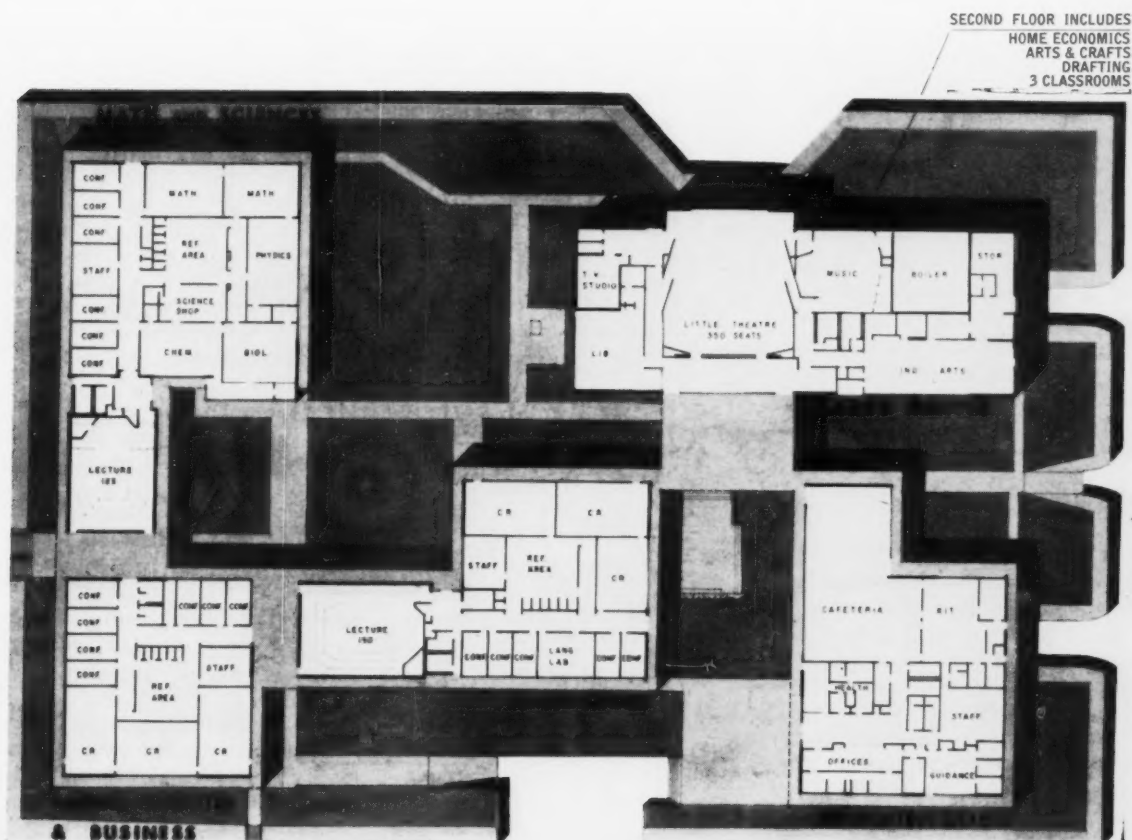
In essence, the planners realized

there had to be a "free flow" between teachers and students, which would be expressed in a variety of relationships. Therefore, a new type of design approach was prescribed, called "planned variability," in which spaces for a variety of functions would not only be provided but, through scheduling, would be in constant use. Adaptable to shifts in the educational program, this scheme would be able to accommodate every type of group from large to seminar to conference level.

It was originally thought that when the school opened, a student would spend 10 per cent of his time in large

group instruction, 80 per cent in medium sized groups, and 10 per cent in small groups. However, experience with the use of varied group instruction has advanced to a point where the more realistic and current breakdown is 25 per cent in large groups, 25 per cent in small groups, and 50 per cent divided between medium sized groups and individual projects.

Among the new concepts developed to provide flexibility within this framework is the teaching team. Reflecting the new attitude toward both teachers and students, teaching teams will give teachers an opportunity to





MATH-SCIENCE

resource and reference center has adjacent cubicles (right) where students may explore classroom materials. The applied science workshop is at rear, behind glass partition.

expand their potential and will challenge the students to work at their best capabilities. At the outset, there will be four teams—one each for the sciences, social sciences, languages and the arts.

A teaching team will consist of a team-leader, responsible for a center; a teacher-leader, responsible for a given subject; fellow teachers; interns selected from local colleges; aides, and clerks.

Each Team Plans Its Curriculum

Each team will be responsible for arranging its own curriculum. The team will choose the material to be taught in each of the large, medium and small groups, select the needed visual aids and library resources, and schedule students in small groups and individual study. The teams will cooperate with one another in order to enrich their subjects.

Through weekly planning sessions directed by the principal, this system will utilize more effectively and completely a teacher's talents, for it will

relieve him of routine clerical tasks. It will also eliminate much wasteful repetitive presentations of the same material to endless strings of classes—information that can be better presented to a large group of students, with supplemental use of films and demonstrations. Thus, a given number of teachers will be able to instruct and guide a larger number of students more effectively than under the conventional system.

For large group presentations, there will be two large classrooms seating 125 and 150 students plus a little theater designed for 400 students. Designed with amphitheater stepped seating and chairs of the pedestal type with continuous writing counters, the large classrooms will be equipped with overhead projectors for closed-circuit TV and large TV screens for use in demonstrations during lectures and debates.

With this desired program in mind, the architects decided upon a concentrated campus plan. The six buildings will include four academic centers

Every size group can be accommodated — from lecture to seminar to small conferences.

Each academic center has its own reference and resource rooms.

for the arts, sciences, languages and social sciences. These centers will be grouped in a compact relationship on a raised plaza graded 3 to 4 feet above the normal surroundings. Each devoted to a distinct teaching field, the centers will contain the necessary classrooms, seminar rooms, laboratories, reference and resource rooms.

Reduces Student Traffic Noise

Because the plant has been divided into separate centers, the disturbing density of student traffic noise will be reduced, as will expensive enclosed circulation space. The spaces are arranged so that when students are moving between the buildings, there is none of the monotony often encountered in a corridor plan.

A total of 23 acres is being developed for the playfields and buildings. As the buildings will interlock, a series of landscaped courtyards will be formed in which there will be attractive plantings to enhance the pleasant surroundings of woods and rolling fields.

Each center will have its own special facilities, such as an electronic audio laboratory in the language building and separate laboratories for chemistry, physics and biology plus an applied science workshop in the science center. A closed-circuit TV studio will be located in the art center so that the school can present its own TV programs and project instructive films or educational programs.

Also planned for the art center are the little theater to be used for dramatics, speech instruction, visual-aid teaching; a ceramics and sculpture studio; an instrumental music room; individual practice rooms; a complete home economics unit; an industrial arts workshop, and the two-story central library.

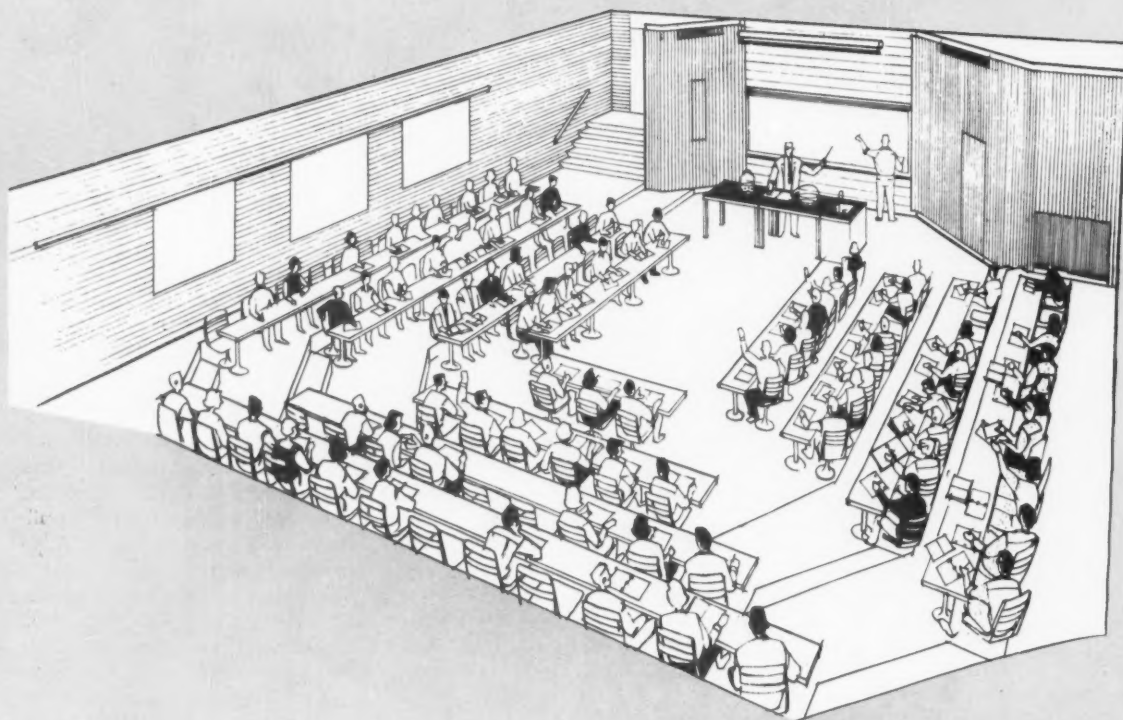
Designed for later expansion, the school will initially accommodate 850 students. However, up to 1200 students could be enrolled if the cafeteria were enlarged and another pair of nuclei north of the science unit were added.

Unique to all of the centers will be centrally located reference and resource rooms. Current and related material will be immediately available from the classroom areas. Adjacent cubicles are provided where a student can take the material for further investigation. These rooms will form an active part of the school, for they represent the attempt to inject increased individual responsibility into the educational program. Essentially branches of the central library, the rooms will also be centers for equipment, tapes, films and aids needed by the teaching staff.

Cafeteria Is Open All Day

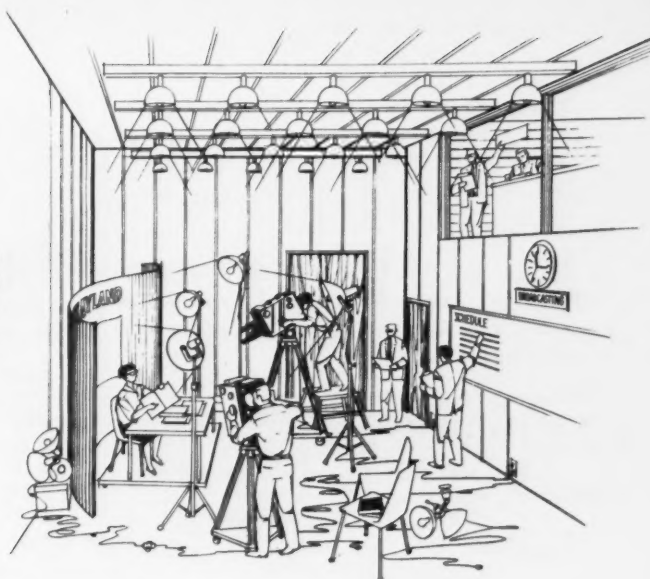
The cafeteria, located in the administration unit, will be open at all times to students who wish to relax and exchange ideas. Also located in this center are the principal's and administrative assistant's offices and conference rooms; the central records office containing general and guidance information, and a lounge for the faculty. (Cont. on p. 89)

**Homerooms are a thing of the past; when a student enters
Wayland High School
he is assigned with 19 others to a teacher-adviser for
the four-year period**



LECTURE classroom is designed
with amphitheater stepped seating, pedestal chairs,
and oblong writing counters.
This room is equipped with overhead projectors
for closed-circuit TV and
large TV screens for lecture demonstrations.

CLOSED-CIRCUIT TV studio is located in art center where school presents its own TV programs and projects instructive films.



Since no homerooms are included in the design, each center will have its own staff area where teachers will have their own desks, files and the like.

This area will be maintained by a clerk who will be in charge of student performance records, duplication problems, making appointments, supervision of the materials in the reference and resource rooms, and general coordination of the center. Nearby conference rooms will be available for private conferences.

When a student enters Wayland High School in the ninth grade, he will be assigned to a teacher on the staff of the learning center most closely related to his current interests. This relationship will be essentially one of adviser-advisee and will continue throughout the four-year period. The students, however, may change advisers as their interests develop and change.

Each teacher will be responsible for about 20 students and will conduct regular scheduled meetings with them. If, for example, the teacher believes that a student is unusually talented in a specific area, he can arrange for personalized guidance for the student. If the student is having

difficulty in learning a particular subject, tutorial service can be provided. (See Charts I and II.)

In contrast to the conventional arrangement of a combined auditorium and gymnasium, the new Wayland High School will have a little theater and a domed fieldhouse with unlimited adaptability at no loss of economy. Larger than a standard gymnasium, the fieldhouse is more flexible because of its shape and size (208 feet in diameter), i.e. several activities can be carried on at the same time.

Fieldhouse for Sports, Meetings

Fieldhouse uses include basketball, indoor football, baseball practice, and calisthenics. In addition, the fieldhouse can seat up to 1500 students for all-school assemblies and up to 3000 persons for civic meetings. The games area will have a dirt floor and peripheral running track.

Two stories of locker rooms for 1200 students are arranged on a split level on one side and a wood floor exercise area on the other. The basketball floor is portable. Bleachers are to be movable so that the whole floor can be cleared.

The fieldhouse will be roofed with

a network or grid of 4 by 14 foot laminated wood members, forming a domed surface and supporting a 2 inch wood deck. Roofing for the dome is primarily asphalt shingles with a built-up roof of white marble chips at the top where the slope levels out.

An industrial type warm air heating unit will provide heat for the open games area. Heat for the locker rooms and hot water for showers will be provided by a low pressure steam boiler in the boiler room.

The four one-story academic centers are concrete "lift slab," which inherently requires an overhang that provides shelter for student traffic between the buildings in inclement weather. This eliminates the need for expensive free standing connecting canopies.

Acoustical tile will be cemented to the underside of the concrete roof slab where required. Otherwise, the slab is painted to give a finish ceiling.

The two-story art center will have a poured-in-place, ribbed slab second floor with a steel roof structure supporting an exposed cement fiber deck. Ceilings are suspended only in locker and toilet rooms and in a small area in the art center's first floor.

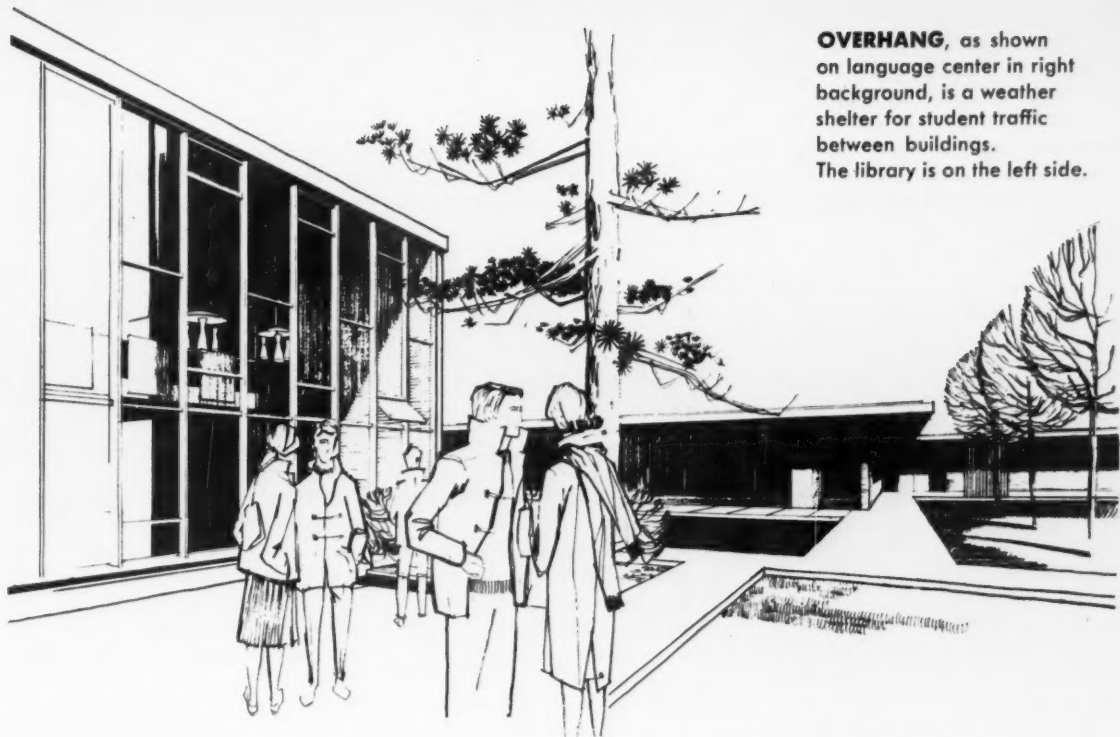
(Continued on Page 91)

Chart 1 — **TEACHER'S SCHEDULE.** On an average, 25 per cent of the teacher's time will be assigned to large group instruction, 25 per cent to small groups, and 50 per cent to medium groups and individual projects.

Period	Monday	Tuesday	Wednesday	Thursday	Friday
1	Large group instruction	Preparation of material, professional study, student evaluation, etc.	Medium group	Large group	Medium group
2	Seminar		Large group	Large group	Free time for preparation
3	Free period for preparation of materials		Seminar	Medium group	
4	Lunch	Lunch	Lunch	Lunch	Lunch
5	Medium group	Large group	Tutorial, direction of advanced projects, available for consultation by students	Seminar	Seminar
6	Individual tutorial	Medium group		Individual instruction	Team conference
7	Team conference	Individual tutorial			
8					

Chart 2 — **STUDENT'S SCHEDULE.** A ninth grader will be assigned to a teacher-adviser for the four-year period. Each teacher is responsible for about 20 students. Note length of time allowed for student's individual work.

Period	Monday	Tuesday	Wednesday	Thursday	Friday
1	Large group — social studies	Individual work, reports, themes, exploration	Large group — math	Individual work, conferences	Large group — English
2	Seminar — social studies		Seminar — social studies		Medium group — biology
3	Time for resource work	Large group — biology	Conference with adviser	Seminar — math	Seminar — social studies
4	Lunch	Lunch	Lunch	Lunch	Lunch
5	Medium group math	Medium group — English	Medium group — English	Medium group — social studies	Medium group — math
6		Seminar — English	Seminar — English		
7	Physical education	Extracurricular activities	Extracurricular activities	Individual work	Physical education
8					



OVERHANG, as shown on language center in right background, is a weather shelter for student traffic between buildings. The library is on the left side.

The exterior walls will be of brick cavity construction, and the interior walls pumice block. Toilet rooms, kitchen and showers will have structural glazed tile walls and tile floors. The windows will be intermediate weight steel projected with unglazed structural tile spandrel walls below.

Spandrel panels on the art center will be porcelain enameled steel. Floors will be primarily asphalt tile with some vinyl asbestos in areas of hard usage, such as the cafeteria.

The academic centers will be heated by low pressure steam generated in a central boiler room in the art center. The steam will be distributed by underground conduit to peripheral trenches under each center. Standard unit ventilators will be used for heat exchange and ventilation in all classrooms and reference centers. Peripheral supply trenches will serve a double use as exhaust air plenums.

A prime prerequisite for all of the planning and architectural decisions was to keep costs within average Massachusetts experience and within

the community's ability to absorb the expense. Bids for the general contract were received in March 1959 with the following results:

The total cost for all of the buildings (118,000 square feet) will be \$1,463,403. The site development and utilities cost an additional \$273,184, making a total of \$1,736,587 for the general contract less equipment, fees, insurance, land cost, and contingencies.

The site cost was \$63,000. Equipment is estimated at \$350,000. Fees and insurance probably will total \$150,000, and the contingency is set at \$57,161. Therefore, the grand total for the completed school ready for occupancy will be \$2,365,748. The square foot cost including the site is roughly \$14, and the cost per student is about \$2700.

These figures are well within the desired range and compare favorably with all past school buildings of similar scale in Massachusetts. The buildings should be ready for occupancy at the beginning of September. ■



VIPS at banquet speakers' table honoring retiring N.A.S.S.P. Executive Secretary Paul E. Elicker are (l. to r.): Ellsworth Tompkins, new executive secretary; Samuel M. Graves, John M. Sexton, and Eugene S. Thomas, executive committeemen; Mrs. Cliff Robinson; James D. Logsdon, second vice president; Howard F. Horner, toastmaster; Cliff Robinson,

Secondary-School Principals

Reported by LEO E. BUEHRING

PORTLAND, ORE. — "Stand up and be counted! Face up to needed changes! If, as principals, you are in truth leaders in secondary education, declare yourselves!" Repeatedly, and in many ways, the almost 4000 attending the 44th annual convention of the National Association of Secondary-School Principals, February 27 through March 2, heard this call to educational statesmanship.

It was rose planting time in the City of Roses. Warm Northwestern hospitality and a brilliant sun teamed up to moderate the winterish breezes and make the raincoats (which all had been urged to bring along) so much excess baggage. And as the young lady said at the banquet, the meeting here had "real principals."

The eight major addresses and 53 discussion groups were program-centered from start to finish. A new film was premiered, with much success. "Position Paper No. 3," on the English language arts, was hailed as a significant document and sent back to the committee for final editing.

The retired executive secretary and his successor were honored. James E. Nancarrow of Upper Darby, Pa., was elected president. Dr. Conant restated in greater detail his "tentative conclusions" on the junior high school. Selected secondary schools of the area were visited. It was a successful convention!

Ellsworth Tompkins, N.A.S.S.P. executive secretary since the first of the year, was honored at a reception on Sunday. Dr. Tompkins operated from behind scenes at Portland, having given the local convention committee

much latitude in planning the details of meetings, tours and entertainment.

This same philosophy of administration he will follow in the national body's relations with the 77 state and regional organizations. Dr. Tompkins plans to hold his traveling to a minimum and to have the association represented at local events by members of the N.A.S.S.P. executive committee. This will permit him to devote necessary time to fiscal and program policies, the expansion of scholarship activities, and the procurement of additional funds for research and other projects.

An Organization Is People

"An organization is primarily people and the services of an organization are primarily program; the second is the outgrowth of the first. A successful organization program depends on the collaboration of people." This is Secretary Tompkins' work philosophy for administering the affairs of the 24,000 member organization. Experience has shown him, he says, that funds usually are available for any worth-while undertaking that is explained enthusiastically and clearly.

Guest of honor at the annual banquet was Paul E. Elicker, N.A.S.S.P. executive secretary from July 1, 1940, through Dec. 30, 1959. He was presented with a sterling silver plaque in the shape of an open book, which noted how "year by year the influence of the teacher, administrator and friend widened and deepened." In his presentation George E. Shattuck, immediate past president, referred to Dr. Elicker as an educational leader "the length of whose shadow extends across the nation."

Making his first formal address to the principals' convention in the almost two score years of service, the retired executive secretary urged the schoolmen to "inspire the best and serve the rest." America has the people and the resources, and a greater day for education is still ahead, he stated.

One measure of this country's educational achievement, Dr. Elicker noted, is that during the 59 years in which Nobel prizes have been awarded for "most benefitting mankind," the United States has led all other countries in all five categories. Since 1930 citizens of this country have been awarded nearly one-half (47.5 per cent) of awards in all categories.

Only one resolution was adopted. It dealt with a problem of extreme urgency and currency to high school principals: the multiplicity of national and statewide testing programs. The convention resolved "that national testing programs be carefully studied for impact on educational goals at the school level before any decision is made to participate or use such results as a basis for evaluation." It was further agreed that "until the findings of the Joint Committee on Testing are published, the N.A.S.S.P. urge schools to exercise autonomy in rejecting national testing programs that fail to meet locally accepted objectives and goals."

"The public wants good education but doesn't understand always what is involved," Jonathan W. Edwards, superintendent of schools at Portland, said in his greetings to the convention. He advised high school principals never to fail to stand up and declare themselves on the aims and purposes of our



president; Dr. Elicker, guest of honor; George E. Shattuck, immediate past president; Mrs. Elicker; James E. Nancarrow, first vice president (subsequently president); Calloway Taulbee, committeeman; Clifford J. Skinner, local committee chairman; Kenneth A. Erickson, president, Oregon A.S.S.P., and Rev. Paul S. Wright, Presbyterian Church, Portland.

'Reinforced' for Dynamic Leadership

public schools, or to make clear their needs in the form of facilities, tools and staff.

"Great city school systems, and small school systems too, have stirred themselves — with vast sums of money from national foundations — to a great surge of inquiry, search and study of the American school system. All this can be very good if the proper leadership guides our course. In these decisions our society has a right to expect the wise, skillful, informed and courageous leadership of high school principals."

This was the substance of the keynote address, delivered by President Frank B. Bennett of Eastern Oregon College, La Grande. Dr. Bennett said:

'Disastrous' To Fail Now

"Your failure now, when great mobility is loosed, can be disastrous. All the fineness and potential gain of a stirred society — with prophets and false prophets everywhere pointing the way — can be lost or, worse, turned into an insidious force skewing our very way of life."

President Bennett said it was "invaluable, wholesome, invigorating and proper" that admirals and academicians, statesmen and politicians, businessmen, farmers and housewives offer their views on, and labors to, education. "But now," he cautioned, "decisions are in the making, determining who will have what educational privileges. And when these decisions have been made, back in the classroom, within the framework of your administration, when 'all the captains and the kings depart,' you must find a way for the best of all this to be accomplished within the means of

finances and staff provided by the society that asks for the change. There you must stand with your staff, key men in 'the decade of decision.'"

Teaching machines offer the superior form of training required by our present scientific revolution to prevent us, collectively, from "floundering into another long night" said Eugene Galanter, associate professor of psychology, University of Pennsylvania. He characterized mechanization of learning as "a renaissance in the method of dialectic teaching."

Dr. Galanter said that how the side effects of teaching machines will act on the educational system remains to be seen, but that act they will. "And we must be prepared not for the introduction of a new device into the educational field, but for the introduction of a totally new method of educating."

The teaching machine must be tailored to bring the child by small steps up through the material we want him to learn. The construction of a se-

quence of steps to amplify the child's initial behavior — so he can master piecemeal, with no errors along the way, finely graded sequences of component knowledges — constitutes the teaching machine program, Dr. Galanter explained. He indicated the machine itself is "a triviality."

Merits of Teaching Machine

Any type of machine that presents the program and gives an opportunity to answer back is adequate, Dr. Galanter said. It can be built for less than \$50. The cost of constructing the program — producing the manuscript for one semester of such a subject as elementary arithmetic — would amount to about \$50,000, he stated.

As advantages of the teaching machine he listed these: About three times the current material can be covered in the same time. The teacher is freed for creative tasks and for discussing and amplifying the fund of knowledge gained from the machine.

(Continued on Page 130)

FRIENDLY CRITICS of the Conant preliminary report on the junior high school were these panel members, (l. to r.): Will French, emeritus professor of education, Teachers College; Bettina King, principal, Meadowbrook Junior High School, Newton Centre, Mass., and Ellis A. Jarvis, superintendent, Los Angeles.



Why Nineteen States Veto Flavored Milk

MARY deGARMO BRYAN

THE PRACTICE of serving flavored milk in school lunchrooms is debated in staff meetings and in legislative halls. Dietitians maintain that the sweetening in the milk, usually chocolate, is nutritionally undesirable as part of a meal being served to school children. This point of view results in a policy on the part of at least 19 states that prohibits payment of federal funds to reimburse schools for flavored milk served in school lunch operations. A survey conducted in 1956 revealed that 21 states did not permit such reimbursement. The NATION'S SCHOOLS has just surveyed these states again to learn that all except two, Montana and Arizona, have continued this policy. Here, Mary deGarmo Bryan, our consultant on school lunch, presents the evidence against serving flavored milk to children at mealtime and comments on the nonreimbursement policies of several states.—Editor.

PROBABLY the most important function of the school lunch is to teach food habits that promote the children's health and well-being during their school years and throughout life. Eating a palatable, nutritionally adequate noon meal 180 days a year is of great value, but *all* foods available in the school lunch should help to develop habits that ensure good nutrition all other days and years.

Milk is unique among foods because of large quantities recommended for daily consumption.¹ One to two servings daily of other basic foods will furnish an adequate diet if milk is added. But because milk is the primary source of calcium, a nutrient required by all persons of all ages, it should be consumed in large amounts.

Recommended dietary allowances range from four cups for 6 to 9 year old children to four and one-half cups for teen-age girls and five cups for teen-age boys. These are 8 ounce cups and yield, respectively, 1 gm., 1.3 gm., and 1.4 gm. of calcium.

During pregnancy and lactation the recommended allowance of milk is from 1½ quarts to 2 quarts a day. This recommendation is significant for high schools and colleges because approximately 13 per cent of all babies in this country are born to teen-age girls.² There are other food sources of calcium, but from 10 to 20 servings of most of these foods are required to furnish the amount available in a single cup of milk.

Widely publicized studies have shown that diets of a high percentage of school children, especially teenagers, are far below recommended standards and that calcium, with milk as its principal source, is one of the outstanding deficiencies.

This brings us to the question of chocolate milk in the school lunch. Children who select flavored sweetened milk learn to prefer it to unflavored whole milk, which they consider comparatively tasteless and lacking in appeal. If both milks are available, the sweetened form is likely to be chosen, especially if the children's diets are nutritionally inadequate.

Milk consumption for the entire day, every day, should meet the optimum recommendations, and habits that will ensure this consumption should be developed. It is difficult to imagine that children will drink a quart or more of chocolate milk every day, day after day. And it is certain that as adult men and women, for whom the recommended daily dietary allowance is 0.8 gm. of calcium, they will not consume three glassfuls of chocolate milk a day. It would seem

to be important, therefore, that *only unflavored whole milk be served in the school lunch in order to establish the taste and habit most likely to lead to consumption of desirable amounts of milk throughout the school years and later.* Milk producers and dairies might well keep this in mind in terms of maximum milk consumption by the whole population as it relates to the surplus of milk produced in the U.S.

Other factors are to be considered as well. A highly sweetened food is likely to decrease the appetite for less highly flavored foods in the lunch. Each half-pint of chocolate milk contains 3 or 4 teaspoonfuls of sugar. This sugar also increases the amount of "fermentable carbohydrates" in the diet. "Fermentable" sugars concern dentists because of the prevalence of caries among school children, as indicated by statements of national and local dental associations. Chocolate may also be undesirable as a possible factor in acne and other skin disorders that frequently annoy teen-agers.

Requires No Content Labeling

Chocolate milk is one of the few foods for which there are no standards — other than those for whole milk — to ensure quality of the product. Formulas for cocoas and chocolate sirups are confidential with the manufacturers, and no content labeling is required. There is wide variation in the quality of products produced. Because of competition among dairies for school business, the cheaper products of proven quality may be purchased by the dairies and may be "stretched beyond the proportion of sirups to milk recommended by the manufacturer." The volume of whole milk in the container is, of course, reduced by the volume of the flavoring that is added. Schools find it difficult to check the statement of butter fat content as issued by dairies, since facilities for

(Continued on Page 126)

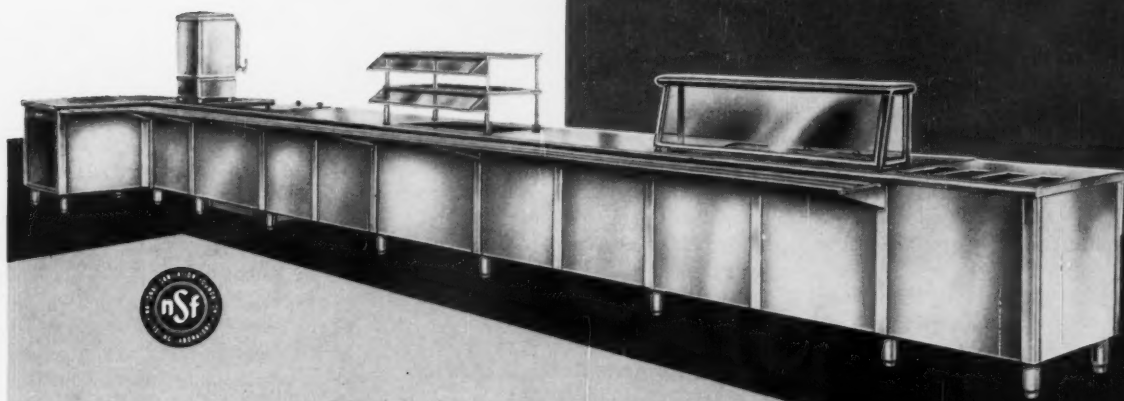
¹Food and Nutrition Board, National Research Council Recommended Daily Dietary Allowances, revised, 1958.

²Vital Statistics of the U. S. 1957, Public Health Service.

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Outside Testing Programs Exert Dangerous Control Over Curriculum

I BELIEVE that there is a danger that schools may use tests as many now use textbooks — as the total sum of knowledge in a given field and the authority by which students are judged,” commented a respondent to The NATION’S SCHOOLS opinion poll this month.

The danger he spoke of is the reason given by many superintendents who question the influence of tests prepared by national groups and commercial agencies. Fifty-two per cent of the administrators participating in the poll agree that these tests exert an outside control over the curriculum.

A superintendent from Illinois said that, until recently, testing programs have not been an area for concern. “But when the public begins asking how many students received scholarships through the Illinois scholarship program; where your schools stood on the National Honors Society test, and how many of your youngsters go to college through the College Board tests, I am afraid that the teacher will react and begin teaching for tests rather than learning.”

‘Forced’ To Prepare for Tests

“When test results are used to rate schools and state school systems, there are great dangers,” declared a Californian. An administrator from Kansas asserted: “Schools are forced to prepare their students for commercial tests to avoid criticism from the parents.”

Some schoolmen contend that “outside” tests do not take into consideration the fact that the curriculum should be flexible to meet the needs of the community. “So-called national standards not only are unrealistic, but promote curriculum changes that are not necessarily justified in light of the local situations existing. As long as the schools belong to the people, the people should be permitted to determine the curriculum rather than some junior-grade headshrinkers who have appointed themselves as experts,” a superintendent from Illinois claimed.

“There is the danger that some schools may be forced, by public opinion aroused by these tests, to accept curriculum practices unsuited to their needs,” a Kentuckian agreed.

Another danger is the pressure on students. “We have found that some students, in order to prepare for college tests, are taking courses for which they have little aptitude,” an Ohio administrator said.

A respondent from Iowa commented: “Pressure is put on the school to get students to make high scores on these tests. Many advisers are having students take the courses that will help them in the tests, when there are other courses that would be more beneficial to them.”

Causes Students To Neglect Arts

Said a Washington administrator: “We do not feel the pressure but we are sensitive to student demands for academic subjects. Students believe that they do not have time for electives such as music and art if they wish to ready themselves for the national testing program.”

Forty-five per cent of the administrators responding to this poll do not believe that tests prepared by national groups and commercial agencies exert control over the curriculum. Yet some of them admitted the possibility.

“There is always the possibility that testing programs could influence the curriculum to the point of control. This hasn’t happened yet,” contends an Oregon schoolman.

“Those responsible for testing programs tend to follow programs prepared by textbook publishers and by educators involved in curriculum construction. There is no doubt that textbook publishers exert tremendous control,” cautioned an administrator from Illinois.

Others do not consider influence on the curriculum from tests to be dangerous. “It is true that certain pressures result from the multiplicity of these testing programs and the desire of the school to compete in excellence of scores, but they are serving a useful purpose in evaluating students for scholarships and college entrance and guidance purposes, and also help us to evaluate our school,” said a superintendent from Washington.

“A small school such as ours welcomes the testing programs as supplements to our own meager testing program,” a superintendent from Kansas stated.

An administrator from Kansas sums up the situation: “Whereas it is true that the commercialization so evident in the area of testing constitutes a threat to our schools, it does not necessarily follow that we should attempt to curb these pressures, as they are often described. What is important and imperative is that we entrust the responsibilities of administration and guidance only to unbiased and well prepared personnel capable of meeting the challenge of the situation.” ■

OPINION POLL FINDINGS:

1. Is it true that tests and testing programs prepared by national groups and commercial agencies are exerting an outside control over the curriculum?

Yes . . 52% No . . 45% No opinion . . 3%

2. Are there dangers in the standardization and control over the curriculum from testing programs upon which scholarships or fellowships are based?

Yes . . 69% No . . 29% No opinion . . 2%

Based on a 4 per cent proportional sampling of all school administrators in continental United States, this survey brought a 39 per cent response.

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PREPLANNING PLANS

IN THE NORMAL COURSE of their down-sittings, school superintendents and teachers ordinarily are accused of every conceivable crime plus a few others thought up in the heat of argument and recrimination. Thus it comes as no surprise that the board of education in one of the swankier suburbs of New York City has fired a teacher for his unwillingness to preplan. In an eight-page decision, the board alleges that Mr. W. was ordered to file two-week preplans for his classes, that he refused stubbornly, and therefore is to be fired for insubordination herewith.

When interviewed, Mr. W. said he did not regret his refusal and violently attacked preplanning as "control by administration" as well as "a scab on the festering sore throats that hinder imaginative teaching."

While no superintendent can condone such intemperate similes, there are some who may secretly feel a sneaking sympathy for the insubordinator because of their own inability for preplanning.

The major hours of a superintendent's day are lost in preplanning, planning and postplanning. Although he realizes that it is an exercise in futility and frustration, he is driven to it by the belief that anything can happen, which always does, and he should be prepared, although he seldom is. The trouble is that most of his constituents and many of his problems are more crafty and astute preplanners than he is.

Preplanning is a somewhat recent development in education. Before the the unmitigated increase in citizens committees, it was occasionally necessary to plan a little ahead, but an alert administrator with a gift for repartee never really had to plan to plan. In vulgar parlance, he played it off the top of his head.

But now, as remarks the *New York Times* in reporting the case of Mr. W., "preplanning requirements have become more prevalent in recent years despite disapproval of some teachers."

Indeed they have, and necessarily so! A few years ago when populations were more quiescent, the superintendent and his board could plan a building for sometime in the indefinite future. Nowadays, they had better have a few preplanned schoolhouses on the boards or they will find themselves double-sessioned, which isn't a very pleasant condition to be in.

If they don't preplan a curriculum

or two, they soon become open targets for the next moon-shoot, and what kind of a teachers meeting would it be if every teacher didn't have a share in the preplanning?

If a superintendent must preplan himself into futility, why shouldn't a teacher be made to preplan? Mr. W., the dissident preplanner, is quoted as saying that he has started a crusade to retrieve the rights of teachers to conduct classes without frozen schedules.

On reflection, it seems that Mr. W. may have missed the point. He should approach his preplanning plans in the spirit of wholesome fun and good natured exercise for he may be fired before being allowed to implement them.

EPITAPH

Here lies Superintendent Daffy
His finish was a pity
His board he didn't taffy
While at Atlantic City

NOW YOU KNOW

IN THE OPINION of many critics, educators are believed to be able to talk more and say less than almost any other professional group. It comes, then, as a delightful surprise to learn that this is a canard probably thought up by some weary board of education at 3 o'clock in the morning.

A recent study of semantics purports to reveal that educators actually rank a poor *sixth* in their ability either to articulate or double-talk. The medical profession is ranked first in this ability, followed by legislatures. Lawyers are ranked third closely pursued by scientists. Even auctioneers, ranking fifth, are more voluble and incoherent than educators.

NEWS NOTE

REPAIRMAN John Notari of Randolph, N.J., was recently fined \$275 for hiring teen-agers to break neon signs so that he could get more work as a sign repairer. School administrators will agree that John is a poor businessman and knows nothing about teen-age psychology. Most teen-agers are cooperative and are willing to work without pay in any project that appeals to them. Even some adults may agree that this project of John's has a certain appeal.

TECHNICAL PROGRESS

FEW SCHOOLMASTERS TODAY, except the very bald or those tottering to retirement, can possibly visualize how modern inventions and electronic devices have combined to tidy up their classrooms, their playgrounds, and their mechanics of learning. A recent advertisement in *The NATION'S SCHOOLS* describes a chalkboard eraser-cleaner which brushes, beats, suctions and purifies erasers while you wait — no thump, no whack, no wham!

As the schoolmaster orders his supply of these modern germ killers along with a few gross of electronic pencil sharpeners and self-cleansing chalkboards (in pastel colors), does he ever realize that he may be making his contribution to today's juvenile delinquency problem?

By depriving children of the satisfaction of creative activity (according to modern psychology), he may be thwarting egos which, in a former day, could sublimate their frustrations by pounding on a tough brick wall.

At the close of each day in Sugartown, the eraser cleaning activity always was made part of the extracurricular work-play program. The brightest and most obstreperous kids were chosen to clean the chalkboard erasers, which they proceeded to do, with a maximum of dust and a minimum of energy, by thwacking them lustily on the brick front of the school building. Erasers were never cleaned in more remote places because the Junior Eraser Clappers Union demanded that their work be appreciated by the public eye.

No sooner was the cleaning process chokingly under way than Aunt Jessie would sally forth wrathfully and truthfully to complain that the chalk dust was changing her washing to tattletale gray. A barrage of well aimed erasers, however, would cause her to retreat.

After thumping merrily until the erasers were limp and shredded, the less conscientious clappers were wont to stage an abrasive battle among themselves or with the local dogs or citizens who strayed too near the school.

In fact, the replacement of chalkboard erasers at 5 cents each was always one of the most painful items in the annual school budget at Sugartown. Old Man Sharpe used to have a prepared oration when the eraser request came up for approval. "I don't hold with either newfangled superintendents or his newfangled erasers," he used to mutter. "In my day a few rags and a little spit kept blackboards blacker."

Possible moral: It takes more than an eraser to improve public relations.



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When Is Corporal Punishment Lawful?

LEE O. GARBER

Director, Educational Service Bureau, University of Pennsylvania

CURRENT concern about juvenile delinquency focuses attention on corporal punishment in schools. News stories report school board action banning or permitting corporal punishment, actions for damages against teachers who have administered corporal punishment or for assault and battery, and actions against parents who have assaulted teachers for administering corporal punishment to their children. While not much litigation has appeared in this field recently, there is enough to give a fairly clear picture of the law as it currently stands.

The Legislature's Authority. The legislature, because it has plenary authority over education, may enact any law relating to corporal punishment that it sees fit, provided such law is not violative of any provision of the federal or state constitution. With the wisdom of such legislation, the legislature is the final arbiter, because courts are not prone to substitute their judgment for that of the legislative branch of government. As a result, there seems to be no reason why the legislature, if it sees fit to do so, cannot enact a law forbidding teachers from administering corporal punishment under any or all conditions.

New Jersey has such a law on the books. Undoubtedly some other states have legislation relating to various aspects of this problem. For example, as late as 1957, three states — Pennsyl-

vania, Oklahoma and West Virginia — had laws stating that school officials stood *in loco parentis* to pupils, thus, indirectly or impliedly, giving to them authority over the child somewhat comparable to that of his natural parents. Nevertheless, legislation of this sort is far from common and serves no real purpose because the courts are in agreement that teachers stand *in loco parentis* to their pupils, even if the statute is silent on the matter.

The School Board's Authority. In the absence of any legislation on this topic, the school board is free to enact any rules or regulations relating to corporal punishment that it sees fit. Again, with the wisdom of such rules the courts have no concern. They will insist only that they not be in violation of any statute or constitutional provision, and that they be reasonable. Thus, in the absence of any statute to the contrary, a board may enact a rule forbidding or permitting teachers and/or administrative officers to administer corporal punishment. Again, comparatively few boards have rules or regulations regarding this subject.

The Teacher's Authority. The question now arises as to the right or authority of a teacher to administer corporal punishment. If a statute or a board rule forbids the use of corporal punishment, the teacher's authority is clear. He then may not make use of corporal punishment. The rule is different, however, if there is no statute or no board rule covering the subject. Then, courts are agreed that a teacher may administer corporal punishment to the pupil, and they will not hold him guilty of assault and battery for so doing as long as he acts "reasonably." (More will be said about what constitutes "reasonableness" later.)

The courts, in ruling on this matter, base their decisions on the status of the teacher and his relationship to the pupil. They agree that the teacher

stands *in loco parentis*, i.e. in the place of the parent, to the child, and he has, therefore, the authority of the parent, within reasonable limits. Courts appear to agree, even in the absence of a statute so stating, that teachers stand *in loco parentis* to their pupils. Nevertheless, the teacher's authority is not identical to that of the parent. It is more limited. In commenting to this effect, a Tennessee court said:

... the power to inflict punishment thus delegated to and vested in the school teacher is not the full extent of the parents' right because the power of correction, vested in the parents, is little liable to abuse, being continually restrained by natural affection, and the school teacher, of course, has no such natural restraint, and, therefore, must be limited to temperately exercising the power to limit such punishment as is necessary to answer the purpose for which he is employed ...²

Under medieval law the parents' control over their children was virtually unlimited and may be thought of as a "life or death" matter. While courts will still allow parents wide latitude when it comes to punishing their children, they now draw the line at what may be termed cruelty and abuse. The latitude given teachers is considerably narrower because, according to the courts, they are not restrained by natural affection.

Another aspect of this problem of *in loco parentis* is worthy of some consideration. Not only does it come into play when defining the extent of a teacher's authority but also in defining his responsibility. In this connection a statement made by a Michigan court is significant. It said:

At least in a limited sense the relation of a teacher to a pupil is that of one *in loco parentis*. We are not here concerned with the law applicable to punishment of a pupil by a
(Continued on Page 104)

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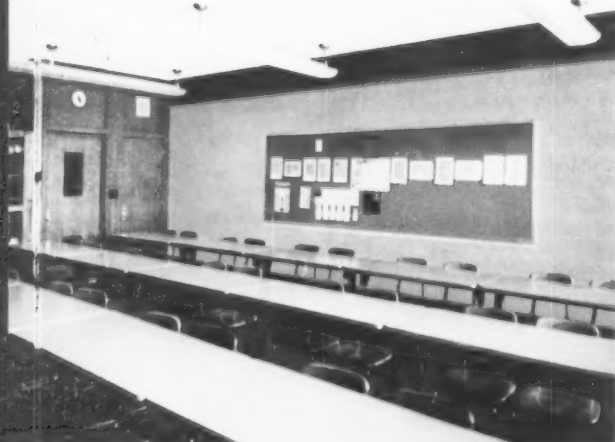
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Corporal Punishment

(Continued From Page 100)

teacher; but rather with the law applicable to the duties of a teacher in the care and custody of a pupil. In the faithful discharge of such duties the teacher is bound to use reasonable care. . . . If . . . the teacher is guilty of the breach of such duty and in consequence thereof a pupil suffers injury, liability results. It is not essential to such liability that the teacher's negligence should be so extreme as to be wanton or willful.²

Thus it is seen that while the teacher's authority results from his standing in *loco parentis* to the child, this relationship results in placing a responsibility upon him as well as granting him a right.

Limitations on Teacher's Authority. In the absence of any statute or school board rule or regulation to the contrary, courts appear to be in agreement that a teacher has the authority to administer corporal punishment to his pupils. This general rule of law is not unlimited, however. The teacher's actions will receive judicial sanction only if he is not motivated by malice and then only if his actions are characterized by the word "reasonable." This rule has been clearly stated by an Alabama court:

. . . [one] standing in *loco parentis* . . . may administer reasonable chastisement to a child or pupil to the same extent as the parent himself; and to fasten upon him the guilt of criminality he must *not only* inflict on the child immoderate chastisement, but he must do so *malo animo*, with legal malice or wicked motives, or else he must inflict on him some permanent injury.³

Even where permanent injury was alleged to have resulted from a whipping or a paddling administered by a teacher, the court has ruled in favor of the teacher where the punishment was moderate and there was no reason for the teacher to anticipate that permanent injury might result. For example, in North Carolina a teacher threw a pencil at a pupil who was inattentive. The boy turned his head and the pencil struck him in the eye, causing permanent impairment of his vision. In an action for damages brought against the teacher, the court

ruled in his favor. In so doing, it held that an act of the teacher that was not prompted by malice is not actionable, even if it results in permanent injury to the child, if it was of such a nature that a person of reasonable prudence could not foresee that permanent injury "would naturally or probably result from the act."⁴

Reasonableness of Punishment. In administering corporal punishment the teacher must remember that, if haled into court, the task of determining whether the punishment was reasonable or not is that of the trier of facts — the jury — and not that of the trier of law — the judge. Here again, it is difficult to lay down any specific rules as to what will be held reasonable and what will be held unreasonable. An Alabama court has made some generalizations on this matter which teachers should keep in mind. It said:

In determining the reasonableness of the punishment or the extent of malice, proper matters of consideration are the instrument used and the nature of the offense committed by the child, the age and physical condition of the child, and other attendant circumstances.

Among these other attendant circumstances might be listed the community attitude toward children in general and toward corporal punishment in particular, and the sex of the child. What a jury in one community might consider reasonable in a specific case might well be considered unreasonable by a jury in another community of a different social, intellectual and cultural level. And what might be considered reasonable in the case of a child of one sex, or one age, or a certain degree of physical development might be considered unreasonable in the case of another child of the opposite sex, or a different age, or a different stage of development. Courts will indulge the assumption that the teacher acted in good faith. The one alleging that the punishment was unreasonable has the burden of proof — and the fact that the paddling complained of leaves black and blue spots will not, in and of itself, serve as proof of unreasonableness.⁵

The right of the teacher to punish a child is not confined to punishment for offenses committed on school grounds during school hours, but is

²Marlar v. Bill et al., 181 Tenn. 100, 178 S.W. (2d) 634 (1944).

³Gaincott v. Davis, 281 Mich. 515, 175 N.W. 229 (1937).

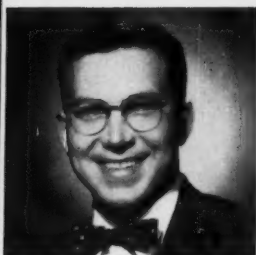
⁴Holmes v. State, 39 So. 569 (Ala.) (1905).

⁵Drum v. Miller, 47 S.E. 421 (N.C.) (1904).

⁶State v. Lutz, 113 N.E. (2d) 757 (Ohio) (1953).

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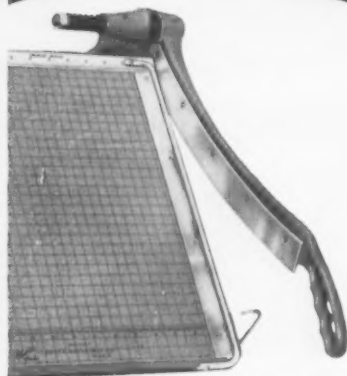
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applicable to offenses committed while traveling to and from school. In Ohio, for example, a court gave judicial approval to the actions of a principal who paddled an 11 year old boy who threw a rock at a little girl while on the way to school.⁶ From this it is evident that the teacher's authority over a child extends from the time he leaves his home until he returns thereto, but his responsibility for the child generally is held to cover only the period of time the child is under the teacher's supervision.

Exceptions to the Rule. While courts are generally agreed that the teacher, unless forbidden by statute or board rule, may administer corporal punishment to those of his pupils he deems necessary, certain exceptions to this rule should be noted. In the first place, it has been held that where a teacher's

⁶State v. Lutz, 113 N.E. (2d) 757 (Ohio) (1955).

and a parent's rules laid down to guide the child are in conflict, the teacher has no right to punish a child for disobeying his rule.

An Iowa court, in commenting on this, said: "A teacher is not authorized to punish a pupil for refusing to do something the parent has requested that the pupil be excused from doing."⁷ Likewise, it has also been held that a teacher may be held liable for administering reasonable corporal punishment to one for breaking a rule later held to be unreasonable.⁸ A better line or reasoning, however, seems to be that a teacher who honestly believes the rule to be reasonable should not be held liable in case it is later held to be otherwise. Honest mistakes in judgment should not be penalized.⁹

⁷State v. Mizner, 50 Iowa 145 (1878).

⁸Rulison v. Post, 79 Ill. 567 (1875); Morrow v. Wood, 35 Wis. 59 (1874).

⁹Fertich v. Michener, 111 Ind. 472, 11 N.E. 605 (1887).

TWELVE ASPECTS OF CORPORAL PUNISHMENT

This discussion has brought out 12 main points regarding the legal aspects of corporal punishment that should be kept in mind by those interested.

1. The authority of the legislature to enact legislation regarding corporal punishment is plenary, except as it is controlled by the statute.

2. A board of education is free to enact any reasonable rule or regulation it wishes regarding corporal punishment unless prohibited from so doing by the constitution or statutes.

3. In the absence of any constitutional provision, statute or board rule forbidding him from so doing, a teacher may administer corporal punishment.

4. One entitled to administer corporal punishment must not be motivated by anger, ill feeling, or malice.

5. Punishment must be reasonable.

6. In determining what is reasonable, the courts will consider the type of punishment inflicted; the nature of the offense; the age, sex, and physical condition of the child, and, probably, the community attitude toward children and corporal punishment.

7. Punishment may not be administered to one who refuses to obey a rule if to do so requires him to disobey his parents.

8. In some jurisdictions a teacher may be held liable for punishing a child for breaking a rule later held to be unreasonable, but in most jurisdictions the opposite would be true.

9. The teacher stands *in loco parentis* to the child even where the statute is silent.

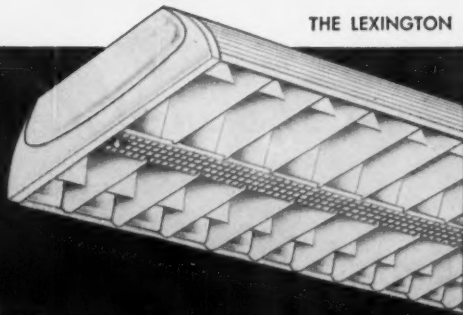
10. A teacher, because he stands *in loco parentis* to the child, stands in the place of the parent, but his authority over the child is somewhat more limited than that of the parent.

11. One standing *in loco parentis* to the child not only has authority over him but responsibility for him as well.

12. The teacher's authority over the child extends home-to-home, but his responsibility is limited to the time the child is under the actual supervision of the teacher.

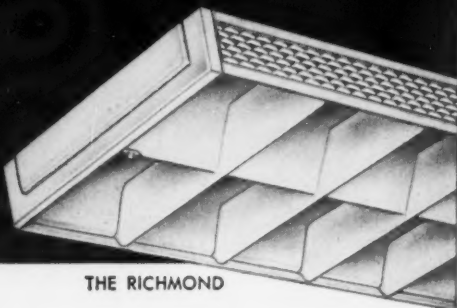
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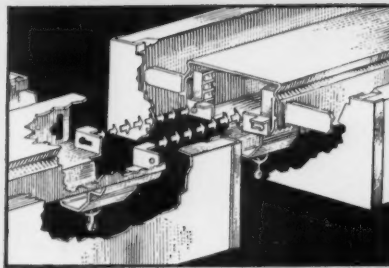
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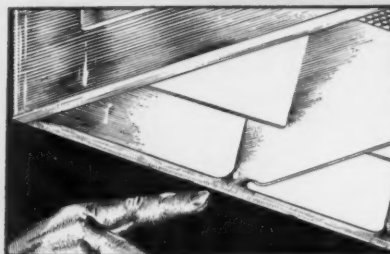
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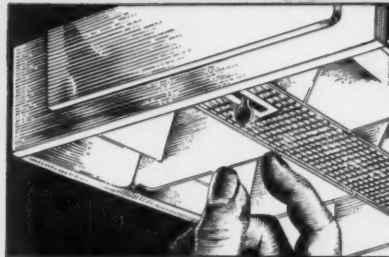
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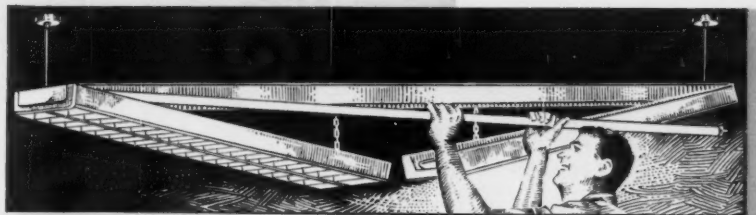
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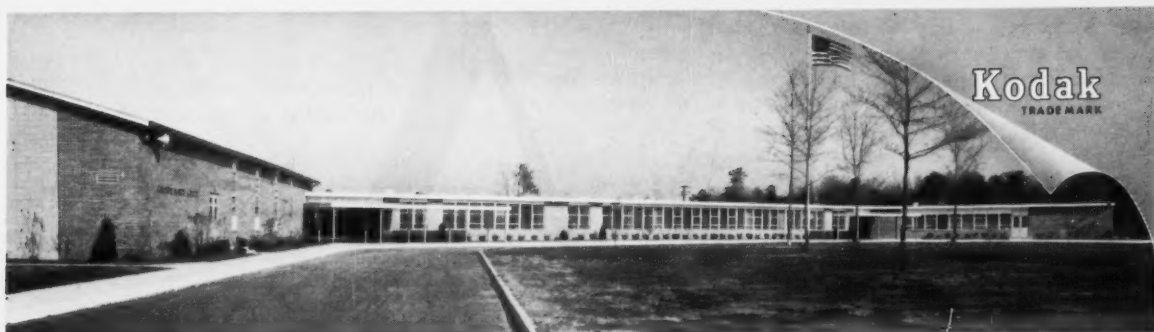
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Report

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CAPITOL DOME

By EDGAR FULLER

EDUCATION bill may yet get through House to President's desk. Ike's signature still in doubt but Democrats see political coup.

A three-year education bill providing \$975 million for school construction and debt retirement is apparently headed for the House floor. If and when it arrives many amendments will be offered, such as to substitute Senate Bill No. 8, to authorize federal funds for current expenses of schools, to attach a Powell segregation amendment, to change the formula for distribution of funds, and to substitute the Administration's debt retirement proposal. If the House passes the bill, the House and Senate may adjust their differences and send a compromise bill to a reluctant President.

Complex as this sounds, it is more likely than not to happen.

Republican Leaders Halleck and Dirksen will do everything possible to prevent any bill that the Democrats may favor from reaching the President, and the Democrats are unlikely to approve any bill of no more help to the schools than the Administration's proposal. The fact that the House subcommittee included the Administration's debt retirement program as an alternative selection to be made by the states will attract little Republican support for the bill. This is because most, if not all, states would undoubtedly elect to receive funds for construction or other alternatives that are more helpful to the schools.

Whatever happens at the White House will please the majority of the Democrats. If the President signs the bill, most Democrats and some liberal Republicans will be pleased that the

schools are to receive assistance. Should he veto it, the Democrats would have an issue to welcome for the November election.

DERTHICK slaps back at Rickover. Defends U.S.O.E. and says American education superior to systems in Western Europe.

At the invitation of Rep. John E. Fogarty of Rhode Island, Commissioner Lawrence G. Dertthick recently defended the U.S. Office of Education before a Congressional subcommittee and made a remarkable reply to Adm. Hyman G. Rickover's criticisms of American schools. A printed copy of Commissioner Dertthick's statement can be obtained by directing an inquiry to Mr. Fogarty at the House of Representatives, Washington 25, D.C.

Admiral Rickover had attacked the schools in testimony before Mr. Fogarty's subcommittee on appropriations for health, education, welfare and labor, and had severely criticized the Office of Education and its operation. In reply, Commissioner Dertthick explained and defended even the "life adjustment" program of a decade ago, which has become a whipping boy for critics. This was never a course in school, as has so often been alleged, but was merely a guidance program for the estimated 60 per cent of high school students who were dropping out before graduation a decade ago. The commissioner reported that happily the drop-outs have been reduced to about 35 per cent, and that no one denies that guidance in high schools is still needed.

Admiral Rickover had claimed that the Office of Education had not paid enough attention to school systems in



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Report From Washington

(Continued From Page 112)

foreign countries, so the commissioner listed a devastating 141 Office of Education bulletins dealing with foreign education systems, including those of the Soviet Union. We doubt that the Admiral will read all of them.

Concerning the academic quality of American schools, Commissioner Derthick asserted that there are as many high school honor students per thousand persons in the American population as there are total secondary students enrolled per thousand popula-

tion in countries held up by Admiral Rickover as having better education systems. The commissioner explained why the comprehensive high school serves our country so well; the value of recognizing differences in the abilities of students, and the fact that Europeans and Soviets are tending to adopt the American system of education much more rapidly than we are tending to adopt theirs.

The commissioner forthrightly declared that, for our purposes, the American system of education is superior to the highly selective systems

of Western Europe. He praised the preparation and competencies of American school administrators, the operation of the Cooperative Research Program of the Office of Education, and the benefits brought to schools throughout the country by the National Defense Education Act.

The commissioner made no pretense that the American schools are perfect. He said that we do not have enough well qualified teachers or administrators. We have too much outdated subject matter. We have too many ineffective school districts, not enough classrooms and other school facilities, and altogether too many thousands of children attending schools on double sessions. Even worse, we have communities that are blind to their educational responsibilities, and spend only about half enough time, effort and money on education.

Thus there was no complacency in the commissioner's conclusions, but neither was there any apology for what the American schools have done for the American people.

FEVERISH survey by H.E.W. of state school chiefs was "loaded." Classroom shortage, shown as being less acute than pictured, strikes new low in old numbers game.

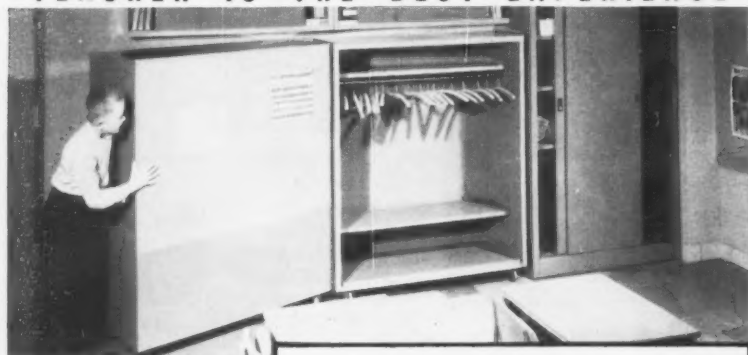
The chief state school officers of the 50 states recently received a 300 word telegram from the U. S. Commissioner of Education saying the Office of Education "urgently needs information on classroom shortages and on borrowed-up school districts." It called for replies by telegraph collect, or by long-distance telephone calls with the charges reversed.

Forty-five state school officers quickly reported that in borrowed-up districts of 15 states there is a shortage of 3086 classrooms, accounting for 12 per cent of the total classroom shortage in these 15 states and 3 per cent of the total classroom shortage in the 45 states reporting. The survey report concluded that legal barriers to borrowing are not the major obstacle to elimination of the classroom shortage, when all possible sources of borrowing legally open to the districts are taken into account.

Several chief state school officers emphasized in their replies that only a small part of the problem of financing school construction was measured. The survey report recognized this. It also recognized that the

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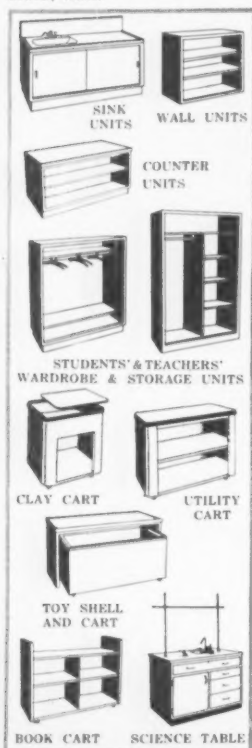
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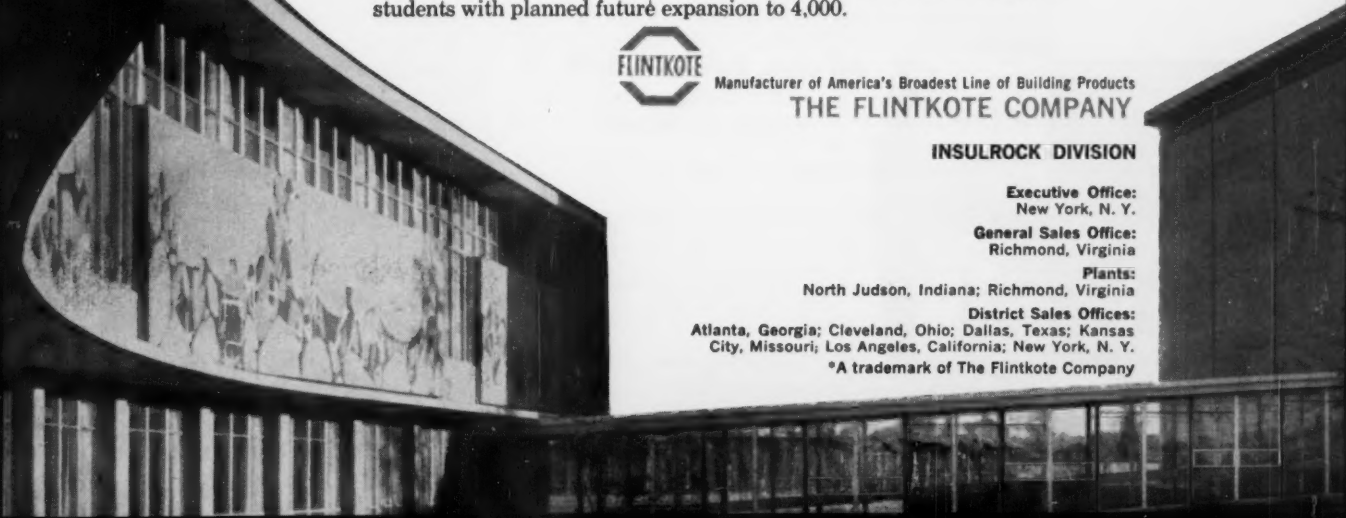
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definition of a borrowed-up district was narrow and restrictive. In a recent conference in the Office of Education, one prominent chief state school officer referred to the telegram as "loaded."

Why was this information so urgently needed? A definitive 213 page state-by-state report entitled "Financing Public School Facilities" was written by Clayton D. Hutchins and others of the Office of Education staff and published last year. It shows clearly that no dogmatic conclusions about reasons for the classroom short-

age can be drawn from even detailed information on the capital structure of local school districts. Then what possible purpose could there have been in a feverish and expensive week of telephoning and telegraphing about borrowed-up districts?

Other than distribution of a mimeographed report, the only public use of the results thus far came when H.E.W. Secretary Arthur S. Flemming told a television audience in New York that a poll of state school officers had just indicated that the classroom shortage is much less acute than it has been

pictured. Taken as reported, this struck a new low in the numbers game about school buildings that had been going on in Washington since 1950. The Secretary had left a different impression in his press conference. Apparently the reporting was faulty.

In any event, state legislatures have liberalized school debt limitations or have provided ways to avoid them in recent years. Only 15 states have a debt limit under 9 per cent of the total assessed valuation of property, 20 states have limits from 9 per cent to 11 per cent, five states from 11 to 15 per cent, four states higher than 16 per cent, and six states have no percentage limitation at all.

Among the states with a school debt limit of 9 per cent or less, Georgia, Indiana, North Carolina, Pennsylvania and South Carolina have developed plans to avoid debt limits through local or state school building authorities that do not pledge full faith and credit when they issue bonds. This makes interest rates higher unless the state purchases the bonds itself, but for practical purposes it is one of the most common ways to eliminate most strictly defined borrowed-up districts.

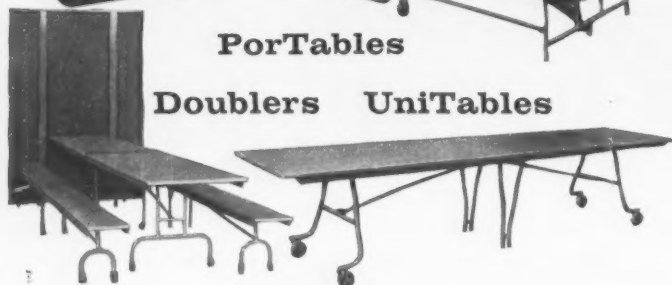
The real case for the current school construction legislation against which Secretary Flemming's statement will be used is based on other grounds. In 1956-57 total expenditures for capital outlay and debt service, together with rent paid to school building authorities, had reached 26.6 per cent of the total expenditures for public schools throughout the country. This proportion is increasing each year as heavy school building programs and high interest rates exert a cumulative influence on local bonded indebtedness.

Why many local school districts need federal assistance in the construction of capital facilities is also clearly indicated by the 10 year trend in capital costs. Interest paid by school districts from 1950 to 1960 increased 275 per cent; during the same period capital outlay increased 221 per cent, current expenditures increased 154 per cent, and expenditures per pupil increased only 75 per cent.

Excessive payments for capital outlay and debt service are preventing adequate financial support of instructional programs in the schools. The Office of Education's survey report makes it clear that the borrowed-up district is a negligible factor. ■

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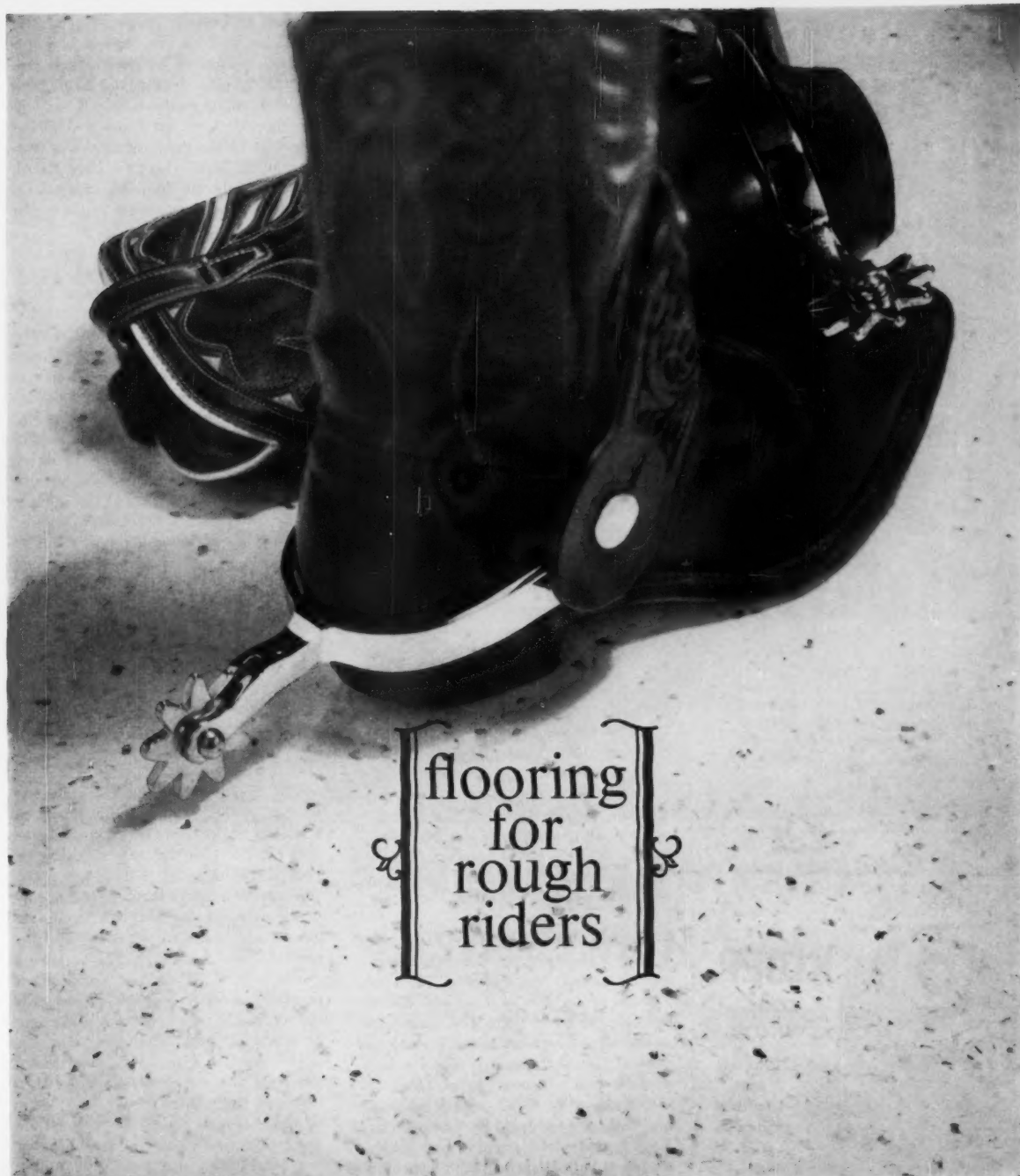
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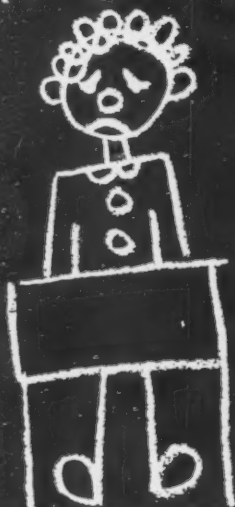


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Conant Report

(Continued From Page 82)

Departmentalized Eighth Grade. I have been convinced from what we have seen and heard that the eighth grade should be departmentalized. This means four specialized teachers of academic subjects (English, social studies, mathematics, science) and specialists in art, music, home economics, and industrial arts as well. I believe all these eight subjects should be required for all pupils in Grade 8 or in Grades 7 and 8, though the last four need not be studied every day.

I am also convinced that ideally a period of physical education should be required for all pupils in Grades 1 through 12 every day, though the length of the period might well be shorter in the lower grades. From what I have heard, drastic revisions of the physical education courses may be in order in many schools.

More Flexibility With Seven Periods.

Such a program has implications for the organization of the school day. I am aware of the preference of some junior high school people for the six-period day with long periods for supervised study, but I tend to agree with those who believe that seven periods provide more flexibility and, provided full advantage is taken of the extra period per day, need not raise the study hall problem. (I assume at least a six-hour day, exclusive of lunch.)

For example, some schools schedule as many as 10 periods of English a week for the slow readers; in the same school, able students may be taking five periods of a foreign language in Grade 8.

May Require Block-Time Teaching.

Though it seems to me the eighth grade should be fully departmentalized, I am inclined to the view of those who believe the seventh grade should be considered as transitional between the self-contained class of Grades 1 through 6 and a fully departmentalized situation in Grade 8. If this is accepted, block-time involving one teacher handling two subjects (e.g. English and social studies) may be desirable provided teachers who are enthusiastic about block-time are available.

But I should advocate some departmentalization. I do not have to tell you that departmentalization in the seventh or eighth grade can be satisfactory only if properly trained teachers are available. Neither the elementary school teacher nor the senior high school teacher is usually well adapted to give instruction in Grades 7 and 8. This is a problem for the state certification agencies and the teacher training institutions.

Factors Affecting Junior High Organization. Clearly the density of population,

the cost of bussing pupils to a central school, as well as the present building facilities, will often be determining factors in regard to whether the junior high school should comprise Grades 7 through 9, 6 through 8, or just 7 and 8. (Opinion differs as to the practicability of a two-year junior high school.) I have heard, too, that state aid formulas can have a bearing on the organization of the junior high school grades.

The logic of the arguments I have presented, especially in regard to departmentalization in Grade 8, point to a five-year school with Grade 8 of 125 to 150 pupils as a minimum. The seven-year elementary schools could be located widely throughout the district and need contain no more pupils per grade than those accommodated in a single class, provided one were willing to postpone all departmentalization and the offering of industrial arts and home economics until Grade 8.

The 6-6 system is found in many different parts of the United States, particularly in rural areas. In 1952 there were two and a half times as many six-year high schools as there were separate junior high schools, though the average enrollment of the junior high school was 50 per cent higher than that of the six-year schools. It could be argued that a newly reorganized district might well consider organizing on a 6-6 basis, especially with very small enrollments in Grades 7 and 8.

Can Share Facilities. One advantage of a combined junior and senior high school in one building is that the teachers and facilities can be shared jointly by both the senior and junior high school students. A second advantage is that such an arrangement may facilitate, though not guarantee, good articulation in the program Grades 7 through 12. A possible question is: At what point, in terms of numbers enrolled, does the separation of the junior and senior high schools become an economical undertaking?

Building expenses and amortization enter the picture, especially since I am assuming the junior high school students should have an adequate gymnasium, auditorium and library—facilities that are expensive to duplicate—as well as departmentalized instruction at least by Grade 8. I especially wish to emphasize my conviction that both junior and senior high school students should have the advantage of a well stocked central library with the service of a full-time librarian. Many schools also use classroom libraries to good advantage.

At least one member of my staff will argue that in a separate junior high school the eighth grade should contain as many as 250 pupils if efficient use is to be made of these facilities, as well as home economics and industrial arts teachers and facilities, since in these subjects the boys

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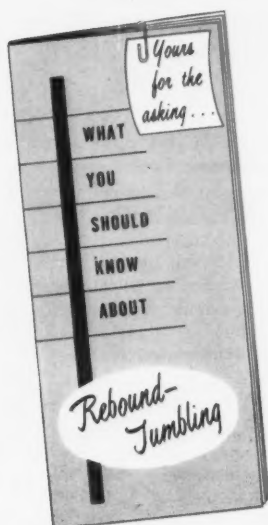


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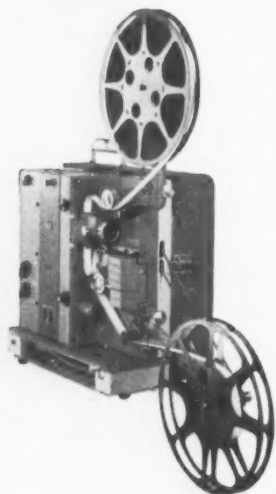
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(Continued From Page 118)

and girls are separated. Of course, in many traditional 8-4 systems, the enrollment in Grades 7 and 8 is so small that few, if any, of the facilities and departmentalization I have spoken of can be provided except at considerable expense.

In densely populated communities, Grade 8 in such schools may be of sufficient size to yield 150 pupils or more. In this case, an 8-4 system may well meet some of the conditions set out above. But the question remains as to whether the social needs of the adolescents are met by such a situation or whether, in the elementary school, special social provisions should be made for treating Grades 7 and 8 as a unit.

At this point I must return to the 6-6 arrangement and note that the possible pedagogic and economic advantages of a six-year school must be weighed against what might be called the social advantages of a separate junior high school. To mix ninth graders with 12th graders is one thing; to mix seventh graders and 12th graders is something else again.

Shocking Overemphasis on Athletics.

I am sorry to report that in many localities the local interest in football and basketball has been almost a determining factor in regard to the junior high school. I had not been aware that interscholastic rivalry involved the junior high school, as well as the senior high school.

I venture to offer my sympathy to the superintendents in regard to the whole athletic business. I cannot help wondering if leaders in the community, as well as the educational profession, have done all they could to strengthen the hands of the superintendents who in some localities are fighting an almost vicious overemphasis on athletics. Colleges, of course, are by and large the worst sinners in this regard, but that the disease had spread to the junior high school was to me a new and shocking revelation.

Remedial and Developmental Reading.

I have found increasing interest in the reading competence of the pupils and a tendency to introduce remedial reading and developmental reading in Grades 7, 8 and 9, which is in addition to the regular English class. The use of reading level tests as one of the major criteria for placing students in different groups in English and social studies in Grades 7 through 9 seems to be on the increase.

I venture to think such tests are preferable to I.Q. tests since they seem more relevant and are easier for the general public to understand. Teachers' opinions, of course, should be given great weight in any scheme of ability grouping.

Identifying the Gifted. Among the new trends to be found in a few schools is the identification of at least the highly gifted

in the eighth grade. These students, having finished eighth grade arithmetic at the end of the seventh grade, may start algebra in the eighth grade instead of the ninth.

Early identification of the highly gifted seems to me to be a most promising development, yet opinion has not yet crystallized as to how large a percentage of the school should be included in this group. There are many problems in this area. If as many as 20 per cent of the eighth grade start algebra in that grade, by no means all of them will be taking the most advanced mathematics courses in the senior year. But this procedure should lead some students in the 12th grade to a considerable amount of study in courses of college freshman caliber. Coupled with the Advanced Placement Program, this earlier identification means a highly gifted youth could finish college in three years instead of four.

This shortening of the formal educational period is important for those who are going on for study in medicine, law, and arts and sciences. Such a program is suitable only for the very able, and there may be a danger in a few schools that some with insufficient ability will be guided into the Advanced Placement Program. This early differentiation is another argument for an eighth grade of considerable size.

New Approach to Teaching Languages.

One of the most interesting developments in recent years which affects the lower grades, and indeed the whole system, is the introduction of what I shall call the "American approach to the teaching of a modern foreign language." At the risk of vastly oversimplifying a complicated subject, I venture to define the "American approach" as one based on a hearing-speaking introduction to the language and to contrast it with the traditional or European method, which starts with translation and the memorization of vocabulary. The traditional method, of course, should eventually develop a proficiency to speak the language in question.

The Modern Language Association has been sponsoring what I am calling the new American approach, which has incorporated in it many of the advances made by the structural linguists. I think it is worth while to emphasize to administrators the contrast between this revolutionary approach and the traditional approach, for the difference has important consequences for the whole setup of a school system.

The proponents of the American approach claim that in a given number of years a pupil will proceed much further in a language than would be the case with the traditional approach, and, furthermore, the pupil starts to speak the

(Continued on Page 124)

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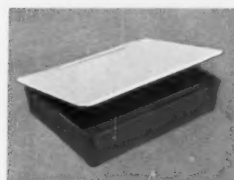
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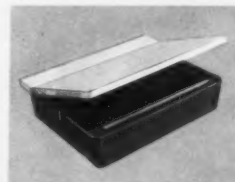
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(Continued From Page 120)

language at a relatively young age. In other words, the pupils start learning to think in the language almost before starting to read or write it. Eventually the goal of both methods is the same — namely, a mastery of the language.

When To Teach Languages. Proponents of the American method believe that the instruction should start preferably in the third grade and certainly in the seventh or eighth grade, though if the introduction to the first foreign language must be postponed until the ninth or 10th grade, the method can still apply. The case for starting a foreign language by the American method in the third grade is based on the fact that children of this age are much less self-conscious than in Grade 7 and are more ready to respond to a teacher speaking the foreign language and enter into conversation with the teacher and fellow pupils.

It also seems clear that the younger a boy or girl starts a foreign language the easier it is to acquire a good accent, provided, of course, the teacher herself has a good accent. (It would be an understatement to say that this is an important proviso for school administrators to bear in mind!)

However, introducing a foreign language in Grade 3 is expensive and, the country over, would require far more teachers than are likely to be available for many years. Therefore, I am inclined to think that only if a community has the funds, public opinion so desires, and really qualified teachers can be obtained should instruction start in Grade 3; otherwise it should start in Grade 7 or 8.

School administrators should make certain that the public understands that this new demand for introducing foreign languages in the lower grades carries with it certain dangers. While no one can be sure now how large a fraction of a typical class has the ability to study a foreign language to a point approaching mastery in the 12th grade, it seems quite clear that not everyone will be able to carry the study far enough to obtain real profit even by the use of this new American method.

The American public is always anxious for educational miracles, some royal and easy road to learning, and I am worried lest the words of the proponents of the American method may be misunderstood. Parents may come to think that their children can all become bilingual in French, for example, by the time they graduate from high school without doing any hard work. This is far from being the case.

Articulation Is Weakest Link. The second danger which already manifests itself in some schools I have visited is that there will be a failure at the senior high school level to take advantage of

the competence developed in the junior high school by the use of the new American approach.

Many senior high school foreign language teachers have not yet transformed their methods of instruction to correspond to the American approach. Such teachers will probably not be able to take advantage of what has been accomplished in the junior high school. Therefore, it would seem to me that a superintendent has a grave responsibility to see to it that proper provisions are made in the senior high school through Grade 12 for those who have started foreign languages in the lower grades and have proved their ability.

As I have gone around the country, this whole problem of articulation between the junior high school and the senior high school has seemed to me extremely important and often the weakest link in a school system. The situation is made far more difficult, however, because of the introduction of the new American approach to foreign languages in the lower grades. Until such time as this new method becomes widely accepted by the teachers in all grades, special attention should be directed by the superintendent to this problem of articulation.

Supreme Importance of Principals. Finally, I should like to state that when I report my findings to a lay audience (and you will recall that it is to school boards and citizens that I direct my words), I shall emphasize the supreme importance of the principals of the junior and senior high schools. Their leadership, or lack of it, seems to be of determining importance.

I refer to their leadership of the teachers and the recruiting of new teachers, as well as to the creation of an atmosphere of understanding between staff, parents and pupils. A heavy responsibility rests on the superintendents in finding and appointing the right people to these important posts.

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Flavored Milk

(Continued From Page 94)

butyric acid tests are not available in all localities. Nor is it easy for them to determine whether the sirup is added to whole milk, or to reconstituted or stale milks.

These factors probably account for the fact that at least 19 states refuse to reimburse schools with federal funds appropriated for school lunches and special milk programs for anything but unflavored whole milk.

For example, J. M. Hemphill, school lunch program supervisor for California, told *The NATION'S SCHOOLS* that in California reimbursement is granted "only for fluid, whole, unflavored milk served to children." He reports that this policy was instituted "with the full knowledge and approval of the California dairy industry" for the following reasons:

Agreements with schools under both programs provide that reimbursement will be granted only for fluid, whole, unflavored milk served to children. This policy was instituted, with the full knowledge and approval of the California Dairy Industry, for the following reasons:

1. Dental health authorities are concerned about the amount of sweets in the diets of children and youth. The Department of Education should not encourage increased consumption of flavored milk through a policy of reimbursement.

2. Administrative problems are created when flavored milk drinks are reimbursable because it is difficult to guarantee that all flavored milk meets minimum butter fat requirements. It is extremely difficult to maintain certifications by dairies regarding flavored milk standards on a current basis.

3. Dairy industry representatives feel that when children develop a liking for unflavored milk they continue as milk drinkers much longer in life than children who have developed the chocolate milk habit.

4. Experience has shown that milk consumption does not decrease when flavored milk is eliminated from the schools. We believe the record shows that milk consumption in California schools compares favorably with any state in this country.

Commissioner Arch W. Ford of Arkansas reports that his state's policy was referred to 100 school administrators as late as last August. These administrators represented large and small schools, both rural and urban, in all sections of the state. Out of the 81 administrators responding, Com-

(Continued on Page 128)

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(Continued From Page 126)

missioner Ford reports that 52 voted for a continuation of Arkansas's policy of reimbursing the schools only for whole unflavored milk. Since 1954 this policy has been under review and has been continuously endorsed by a 38 member advisory committee representing the state department of education, the state health department, the Arkansas Congress of Parents and Teachers, milk producers, milk distributors, the Arkansas School Food Service Association, the Extension Service, and school administrators on

both of the county and local levels.

John C. Stalker, director of school lunch for Massachusetts, told *THE NATION'S SCHOOLS*: "We believe that schools should avoid any practice that contradicts its own teachings or is contrary to the nutrition recommendations of our medical and dental associations." This policy is supported by the Massachusetts State-Wide School Lunch Advisory Committee, representing 22 state agencies "having direct or indirect interest in child health and welfare."

"Our experience has been that

where flavored milk has been discontinued, the sale of whole white milk has increased," says Elizabeth F. Angell, chief of school lunch services for Rhode Island. "It has been the feeling of the State School Lunch Policy Committee and administrative staff that there is less plate waste in schools where only white milk has been available with the Type A meal."

State Supt. Thomas D. Bailey of Florida advised *THE NATION'S SCHOOLS* that "we are backed up by Florida law in this connection [refusal to reimburse for sale of chocolate milk] because chocolate milk is not required to meet the full milk butter fat content standards. However, I believe we would continue to follow the policy regardless, because we believe it to be nutritionally sound."

Montana Reverses Policy

Montana has reversed its previous policy and is now reimbursing for chocolate milk. L. L. Brown, school lunch program director, explains that "since the U.S. Department of Agriculture permits reimbursement for chocolate milk in programs under their jurisdiction it seems only right that we should also permit the use of such milk under certain conditions and with adequate controls. Please understand, however, we are not in any way trying to encourage the serving of chocolate milk in place of whole white milk, but rather we are permitting its use in the School Lunch Program and the Special School Milk Program if, and only if, the school authorities decide to offer it."

Montana has laid down certain conditions, however, governing this reimbursement. Children must be offered a choice between white and chocolate milk, and the milk supplier must sign a certificate that the chocolate milk meets the state butter fat requirement for whole milk. Montana states flatly that "chocolate drink" may not be substituted at any time for chocolate milk.

An "Extra" in Arizona

Arizona, too, has begun this year to reimburse for chocolate milk with the provision that the dairies certify to the amount of butter fat content and to the fact that only whole pasteurized milk has been used. The state makes it clear, however, that chocolate milk may be offered only as "an extra" or on "special days" and is never to be offered as a substitute for whole unflavored milk. ■

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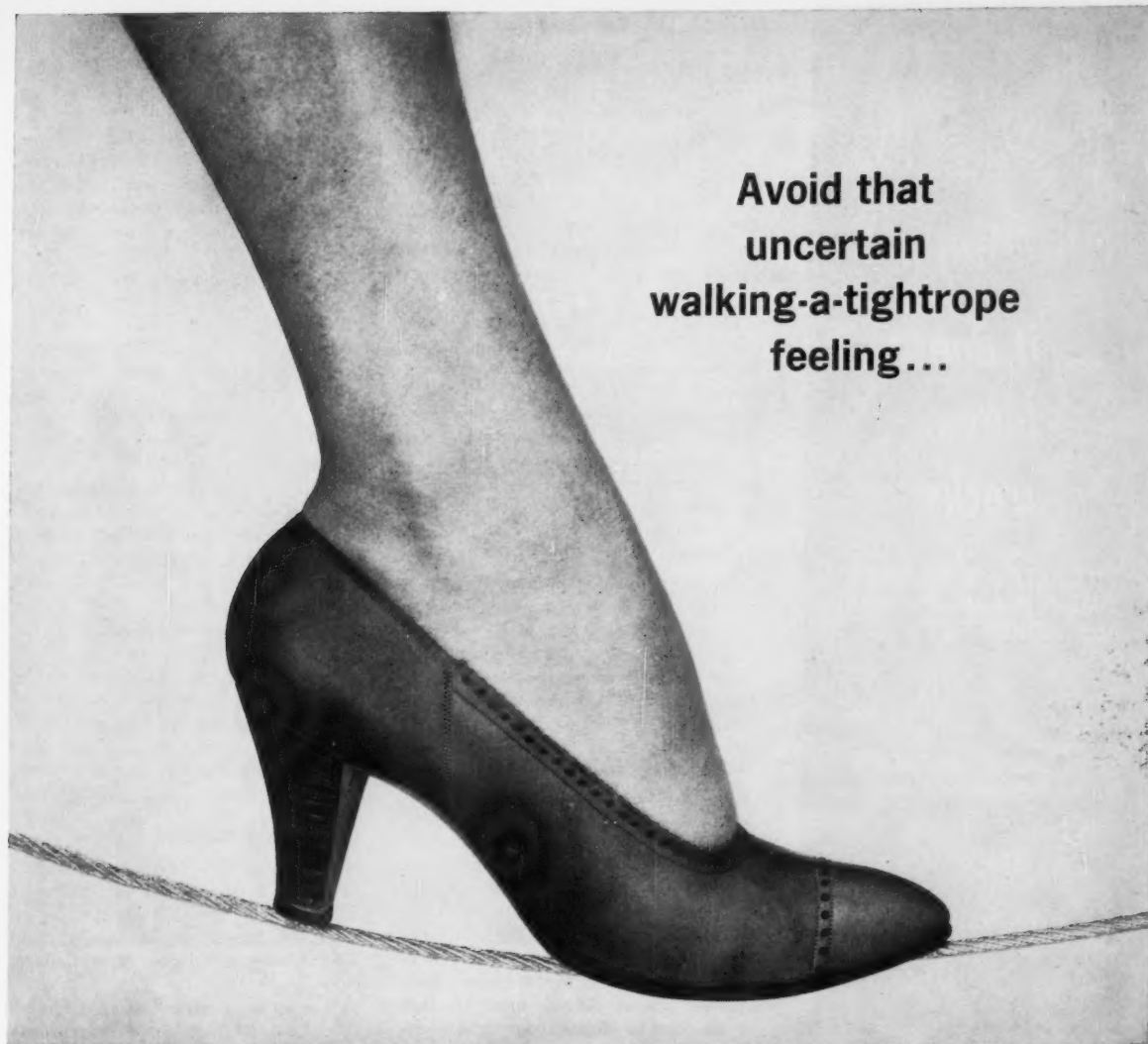
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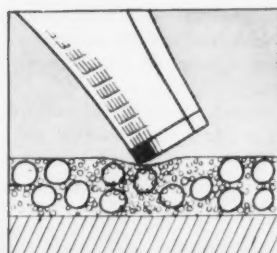
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N.A.S.S.P. Convention

(Continued From Page 93)

A return to scholarship is implied, since the child proceeds independently at his own level. A teaching machine also makes the recognition of talent simple and obvious. Bright and dull children can use the same program, with the bright children taking only one-third as long to get through the program material, giving them time for additional work.

The major limitation seems to be constructing the program materials, the needed "artisans from the educational vineyard being few and far between." Dr. Galanter concluded: "But work is progressing, and within the next few years we should see the existence of machine teaching programs in elementary, secondary and college subjects."

Deplores "Economic Illiteracy"

"If we are a nation of economic know-nothings, it is because no one has ever bothered to explain the subject to us. Only about 5 per cent of the nation's high school students take economics. Oregon is the only state that has made this subject a requisite to graduation from high school."

These were among the charges made by G. Keith Funston, president of the New York Stock Exchange and former president of a small college. Yet economic understanding is vital to an understanding of our free economic society, Dr. Funston said.

The first step, he counseled, is to recognize that widespread economic illiteracy is a weakness of the nation's educational system. Schools must see that economics is taught by a competent teacher, not by the band leader.

Case of the Trained Mind

"Lucky accidents have made possible man-made plastics, man-made drugs, and man-made atoms. But in all these cases, chance came to the trained mind." This was the observation of Hubert N. Alyea, professor of chemistry at Princeton University, who advised how students should prepare to make great discoveries.

For the student eager to become a great scientist, the Princeton professor wrote this threefold prescription: (1) Become expert, not only by taking more laboratory sciences; more mathematics, to learn to think more clearly, and more English, to learn to communicate more effectively. (2) Become human, by spending time outside of the classroom away from books, learning how to get along with people, mixing in extracurricular activities, dramatics, sports, clubs. (3) Train to become a skilled leader. "You will be luckiest when you work hardest, but also work intelligently. Keep your nose to the grindstone, but turn your head this way

and that while sharpening your wits. Have imagination. Do not be afraid to venture intelligent guesses; skilled leaders are men who guess wisely. Develop confidence."

Lee A. DuBridge, president of California Institute of Technology, trusts that the increasing competition for admission to chosen institutions of higher education "will bring the matter of intellectual competition out into open realms of discussion and frank recognition."

"More and more it is becoming meaningless for an individual to state simply that he is 'going to college'; more and more it is becoming important for him to indicate to which college he is going, or at least to which kind of college," Dr. DuBridge said.

While by 1970, by and large, "students below the average level of intellectual achievement will be admitted mostly to public institutions, this does not mean that every public institution will be accepting students of lesser ability than any private institution," Dr. DuBridge explained. To obviate this, such arrangements as the California master plan are being developed: restriction of the upper one-tenth of high school graduates to the state university and one-third to state colleges. Junior colleges will continue to serve all applicants.

Leadership Needed

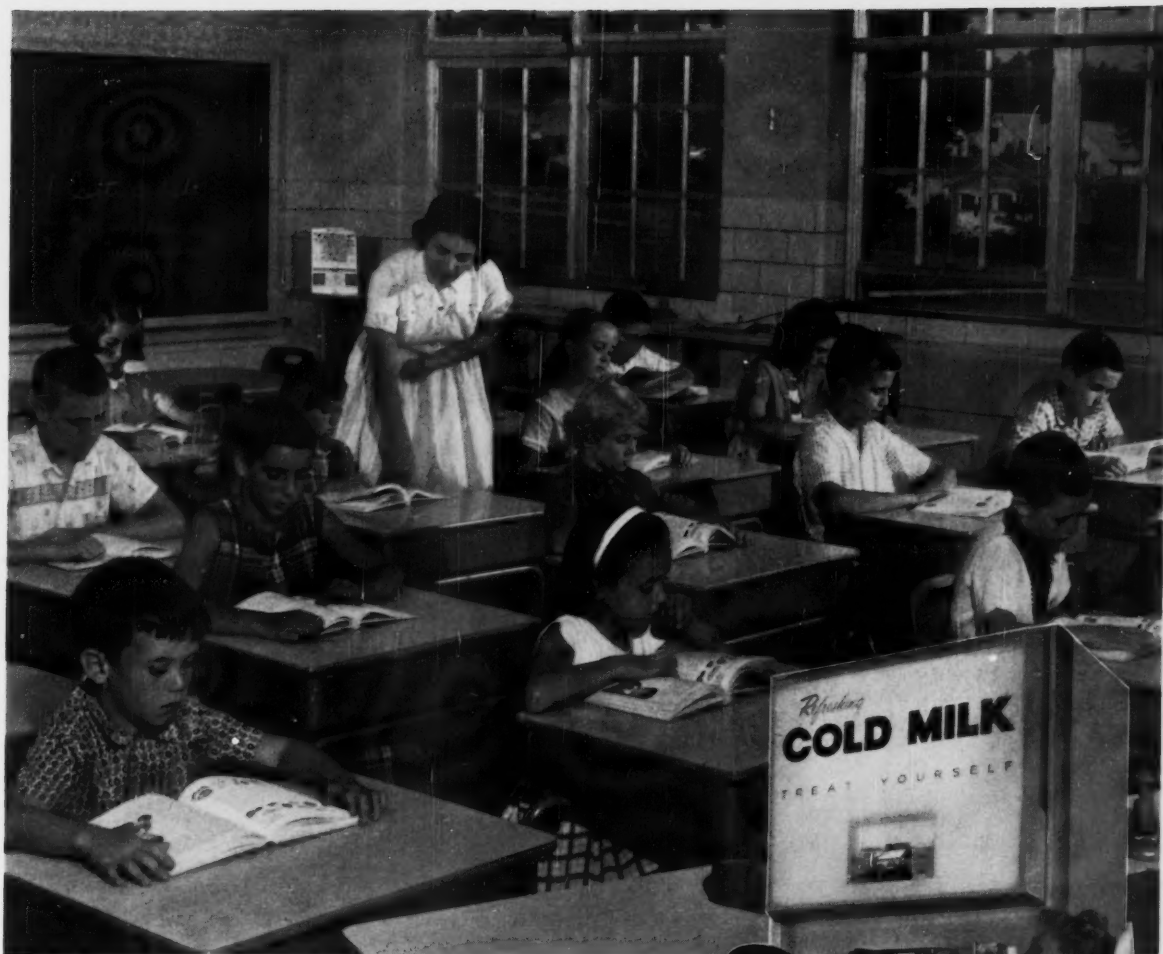
The Three I's of leadership were discussed by the immediate past president of the Future Farmers of America: imagination, initiative and ingenuity. Said Adin Hester of Oregon State College, Corvallis:

"Let us not confuse our opportunities by biases or shortsighted or narrowly conceived goals. Relatively few students in our classrooms are capable of becoming science and math wizards. The responsibility of youth leadership rests upon recognition of every opportunity. Whether or not we shall continue to be a great and proud nation depends, to a large extent, upon our ability to provide inspiration for the many, not the few."

Teaching About Religion

America's basic religion is the American way of life, the speaker at the Sunday vesper service told the high school principals. The Rev. Wesley C. Nicholson, pastor of the First Congregational Church, Eugene, Ore., said that, because they are idealistic, many Americans confuse their espousing of causes with fulfilling them.

While on paper ours is the most religious society in history, surveys show that those interviewed admit that their religious concepts have little effect on their ideas of political life or business conditions, Dr. Nicholson reported. Schools, in fostering ethical attitudes,



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have failed to motivate students in relation to the fundamentals of our common life, he said. We had better find out how to make people responsible, how to apply moral and religious controls. Formulating a basic expression of faith that can be agreed upon by all groups and used in the schools has been tried, but now has fallen into disrepute and has been labeled impractical, Dr. Nicholson stated.

Junior High Distinctive

"When more imaginative practices are tried, the junior high school is likely to try them," Oklahoma City's superintendent of schools ventured to say at the luncheon on Tuesday. "The task of our schools has to be seen as something more than giving youth selected items from the cultural heritage 'to learn,'" Melvin W. Barnes stated.

Dr. Barnes gazed upon "tomorrow" to see these developments:

Exploration. We have let pupils meander across a vast range of content, giving it the "once over lightly." In the junior high school of tomorrow there will be more opportunity for students to do a creative kind of exploring that will linger in one field long enough to foster a deep desire to know.

Problem Approach. We shall have to teach boys and girls what we do not know ourselves. We will take even more

seriously teaching students to use with intelligence the facts they meet in new situations and in novel problems. Let us keep the pressures that insist on covering "so much ground in so many days" from smothering in students the cultivation of a healthy spirit of curiosity and inquiry.

Guidance. This increasingly will sink into the main stream of teaching. We are not going to look upon orientation merely as something done by a counselor visiting sixth graders the year before they enter junior high school. Group guidance can be done most effectively in the classroom. Specialized guidance personnel can do some of its best work by strengthening the competence of teachers in handling their guidance responsibilities.

Student Activities. Increasingly we are going to incorporate activity programs in the regular classroom work. What is good in the science club should also be good in the science class.

Program. The future junior high school will plan its program in terms of the specific needs of each child. There is no reason why the requirement should be the same for every seventh grader.

The present drive in the direction of increasing departmentalization has as its major purpose higher teacher competence in subject matter. How pupils learn is equally as important as competence; learning has to be motivated. The aim to offer a meaningful program of common

learnings, even though difficult to realize, is as good today as it ever was. We ought not to retreat from it.

Dr. Conant Honored

At the annual luncheon session, James Bryant Conant was awarded a plaque and cited by the N.A.S.S.P. for "his great interest in and service to the secondary schools."

The president emeritus of Harvard University told his audience that "those who seek to put the national need in opposition to individual development are guilty of drawing a false antithesis." The concept of a perpetual struggle between the two interests, he said, are not supported by analysis.

In the case of a young person obtaining something approaching a mastery of one modern language prior to graduation from high school, Dr. Conant said: "It



JAMES B. CONANT (left) was awarded a plaque for his "great interest in and service to the secondary schools," by new N.A.S.S.P. President **JAMES E. NANCARROW**.

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seems clear that the objectives of self-realization and national need coincide completely." In this field, as well as in all the others, "a course of study that will benefit an individual in his or her development will likewise add to the treasure house of national skills, and his potential value to the nation increases with the development of his skills."

At the one general session set aside for junior high school matters, Dr. Conant presented a "progress report" on his study of this area of school administration. In the main it followed the "tentative conclusions" he offered at the annual meeting of the American Association of School Administrators in Atlantic City two weeks

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earlier. The report appears in full text on page 82 of this magazine.

Following Dr. Conant's presentation, a professor of education, a secondary school principal, and a superintendent of schools "reacted" to the junior high school report.

Ellis A. Jarvis, Los Angeles superintendent of schools, touched on these points:

Guidance. The suggested ratio of professional counselors recommended in the first report is disturbing because "a guidance program involves much more than counselors. Classroom teachers, homeroom teachers, health coordinator, and others all have a part. Much guid-

ance material makes up a part of the regular classroom offering. If there is too much specialization, the other members of the staff tend to shirk their guidance responsibilities."

Homework. If all teachers followed to the letter their schools' stated policy in this respect, the superintendent would be unhappy. Judgment must be used.

Organization. All things considered, the 6-3-3 plan has advantages. But housing and local conditions will determine the choice. Stay away from using old elementary buildings for junior high schools. The rebuilding that results costs more than the investment is worth.

Noting the Conant Report referred to "a retreat from the core concept toward a structured program," Bettina King said that during the early adolescent period a child needs a home base, an island of stability in his busy life. This makes **block time** scheduling of English-social studies a necessity, the principal of Meadowbrook Junior High School, Newton Centre, Mass., believes. Needed is a person who spends part of each day in the classroom with the student and who can sit down and talk with him. This cannot be done by a person in the guidance office since the unstable young adolescent doesn't "tick" on an appointment basis, she declared.

On the advocated **ability grouping**, Mrs. King agreed that this is desirable for mathematics and science, but not for English and social studies. She favors block time classes which are a cross section of the school society. "One cannot teach democratic processes realistically unless the class is heterogeneous."

Referring to the comment that "there is no overwhelming evidence whether the ninth grade belongs with Grade 10 in the senior high school, or with Grade 8 in the junior high school," Mrs. King said there is a strong argument for retaining Grade 9 in the junior high school.

"The uniqueness of the junior high school is that it is a transitional school; it is not just Grades 7 and 8 that are transitional, but the whole school.

An emeritus professor of education at Teachers College, Columbia University, Dr. Will French, was the third discussant. He commented on the following areas of the Conant Report:

Required Studies. This recommendation should be softened to suggest that "as a general rule" the basic courses should be required in the junior high school. It is doubtful that all will benefit from the arts beyond a certain point. Industrial arts should not be limited to the boys and homemaking to the girls. Special subjects should be elective. "The school has no God-given authority to choose for the student."

Block Programs. If they help in the seventh grade, why not in Grade 8? Leave the individual school free to make the choice. There should be some of both child-centered and subject-centered planning at both the elementary and junior high school level.

Grouping. The main concern here is that this be done to benefit all students, so some are not benefited at the expense of others.

Older Slow Learners. There is an implication here that there is no place in the senior high school for older slow learners. Studies show that, with proper planning, there can be improvement up to the age of 19 years.

(Continued on Page 136)

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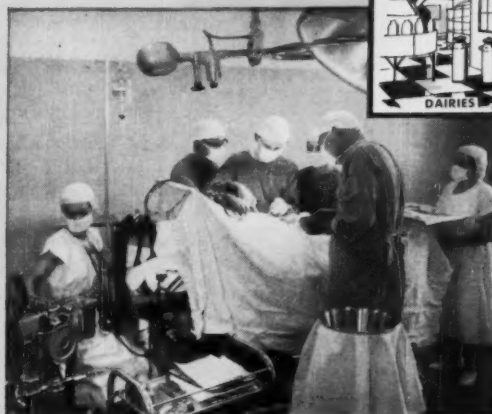
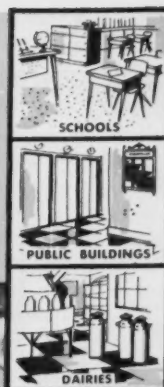
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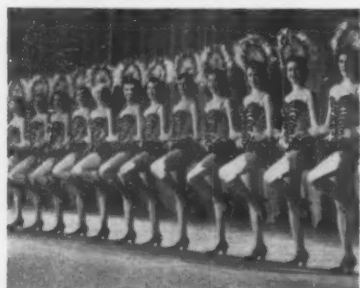
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Homework. There are too many other good organizations for the school to monopolize the student's out-of-school time. There's a limit.

Periods. Six longer periods, rather than seven periods, are to be favored. The flexibility argument can be overplayed. A school can do a good job in 30 hours instead of 35 hours.

Report to Laymen. The final Conant Report should not state findings with such finality and rigidity that they will hamper the school administrator if he differs with the recommendation. The professional should not be bound by the report in the mind of the laymen.

Review of Report. Before publication the final Conant Report should be reviewed by junior high school people.

President's Impressions

The 1960 convention was the culmination of a year of direction changing administration by the president, Cliff Robinson, who is a secondary education of Eugene (Ore.) public schools. He expressed the following impressions in a visit with the representative of The NATION'S SCHOOLS:

There has been a gradual change in emphasis from organizational matters, such as membership, to the real business of the association: offering leadership to and being of service to the 24,000 high school principals who comprise its membership. Our organization is not attempting to do all things, but rather to limit itself to those areas in which it is prepared to do a better job than any other body — increasing the effectiveness of the high school principal.

The problems in secondary education are so many and so intricate that there is room for all functioning groups to make a contribution. N.A.S.S.P. is trying to avoid duplicating the work of other organizations, but to work with these associations on common problems. "We are not angry with anybody."

As an illustration of the fact that "there is such a tremendous job in secondary education that N.A.S.S.P. will have its hands full in its own front and back yard," President Robinson called attention to the "Position Papers" the association has sponsored in recent years: one on science and mathematics teaching, another on functional instruction in modern languages, and this year's "English Language Arts in the Comprehensive Secondary School." To prepare these documents, the association has called on experts from organizations specializing in these fields, rather than enlarging its own staff for solo studies. This past year the special contact was with the National Council on Teachers of English.

Other groups with whom close working relations were maintained are the American Association of Collegiate Regis-

trars and Admission Officers and the National High School Federation.

Further evidence of cooperation is the Joint Project on Testing, under way since January, with the American Association of School Administrators and the Council of Chief State School Officers. In this area the principal has "been caught in the middle." Director of the project, expected to require a year of time, is Charles C. Holt, on leave from his job as principal of East High School, Maywood, Ill.

Other subjects on which President Robinson expressed his views were:

Articulation. If colleges expect to participate in the continuity of the educational program, even "call the shots," they must be willing to participate in the planning at all levels and assume their proportionate share of responsibility. "I see education in the United States today as a 16 year rather than a 12 year program. It must be approached as such."

Prestige Schools. The percentage of academically able students accepted by some of the nationally known private schools will become increasingly smaller. Many apt students can no longer enjoy the privileges of the great institutions. If this percentage can conceivably become less than 1 per cent, the question is whether this is good for the school and for the country.

Some colleges are flunking 50 per cent of their freshmen, and some of these failures are attributable to poor college teaching, rather than to the ineptitude of the students. This sorting out process could lead to some ridiculous placing of people. "I am not convinced that the history of the world shows that the major contributions to society were made by the top level intellectually elite."

Human Welfare. "I am not convinced that the future of America depends on its physical scientists and engineers. It is likely that it is more dependent upon the contributions of the social scientists."

Supervision: Close personal supervision of the teacher by the principal went out two decades ago. The best supervision still is the right kind of inservice training. This does not mean that the principal should not observe in the classroom as a colleague, using certain proved technics. This will always be important.

Moving Forward. "Now is the time for secondary education to do the things that have been pointed out as the things that need to be done. If with subsiding criticism we go back and run our schools as we did before the storm broke, we ought to be criticized."

New President Interviewed

The new president, James E. Nan-

(Continued on Page 166)

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ON THE SHELF

with James M. Spinning

Lieberman Makes Chuck Beef of Sacred Cows

THE FUTURE OF PUBLIC EDUCATION.

By Myron Lieberman, University of Chicago Press, 1960. Pp. 294. \$3.

WEARING on its jacket the label "an unorthodox diagnosis and some startling proposals for reform," here is a book to make school people think — and squirm. Some of them will weep.

The Argument. All this talk about keeping the schools close to the people, says the author, is anachronistic. The educational power structure is upside down and a Revolution is coming sure as shooting. Local boards don't know enough to run the schools.¹ They are sitting ducks for politicians and special interest groups as well as for their own ignorance and timidity.² School administrators are too scared of losing their jobs to venture any effective leadership.³

In both the local and the national interest we must have a national pattern controlled by the profession.⁴ It should become a profession in the sense that medicine is a profession with the experts calling the shots and giving them. A profession prescribes the training and the admission requirements of its members, and it disciplines them.⁵ Out of the prestige of its expertness and/or its voting power it does not ask, but tells, legislatures what the rules of its governance and service shall be. When education can do this it can reform itself — and not before. Only massive concentrated authority on a national scale will serve.

Let the N.E.A. face the facts of life and reach for power. Then it will be respected. Let the A.F.T. drop its un-

productive alliance with the A.F.L.-C.I.O.⁶ Then let N.E.A. and A.F.T. merge under \$50,000 a year leadership. When that is done, instead of futile community-by-community and state-by-state strivings for school support and higher salary schedules, teachers can negotiate wage contracts at the national level.⁷ Operating from strength, they will command, not beg. There will still be problems, but once the profession has a free hand to set its own standards these can readily be ironed out.

A Sharp Scalpel. These in barest outline are the theses Myron Lieberman nails to the door. He fills them in with considerable detail and illuminates them with piercing analysis of what he considers our stupid and unnecessary compromises. To much of the detail many of us could subscribe with cheers, and yet feel that the author has not added it up correctly. The whole seems considerably greater than the sum of its parts. But surely the man has a deft way with a scalpel. You can't help admiring the skill with which he makes chuck beef of your most sacred cows.

This is not Lieberman's first essay in iconoclasm. It is a logical extension of his "Education as a Profession" (Prentice-Hall, 1956) and of articles he has done as education consultant to the *Nation*. He has taught in St. Paul public high schools and the universities of Illinois and Oklahoma as well as at Yeshiva. He is now director of basic research for the Educational Research Council of Greater Cleveland.

Crusade for Power. Let's look more closely at the new icons. The author hews to his line — a national system even a national curriculum, controlled by the profession. He regards as relatively unimportant and obscurantist any public debate over educational issues or philosophy.

(Continued on Page 140)

1. "Local control is a major cause of the dull parochialism and attenuated totalitarianism that characterizes public education in operation."

2. "A national system is much more likely to provide a truly liberal education than a multitude of totalitarian systems under local control."

3. "School administration in the United States is degenerating precisely because school administrators ask instead of tell the public what should be taught in the schools."

4. "The chances are that the practical sense of the American people will be forced to assert itself and that they will develop a centralized school system while simultaneously reaffirming their faith that any such system is un-American."

5. "By definition, an occupational group is a profession only when it controls entry to that occupation." . . . "Professional control over entry has always preceded the establishment of high standards in the acknowledged professions."

6. "The A.F.T. has completely ignored the need for teacher control over entry to the teaching profession."

7. "In self-defense (against organizations which do so) teachers will have to organize and bargain at successively more inclusive levels until they find themselves bargaining at the national level." . . . "Collective bargaining may be advocated initially as an economic measure, but its ultimate justification will lie not so much in what it will do for teachers as in what it will do for American education."



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On the Shelf

(Continued From Page 138)

phy, basic *vs.* progressive education, science *vs.* humanities, or (in teacher education) subject matter *vs.* methods courses. These are for the profession to decide. True, the people should set the goals, but the experts should select the means. You don't tell your physician how to diagnose your ills or what to prescribe for their cure. You ask him. So let it be in education. No lay school board or citizens committee or state legislature should tell you, the experts, how many minutes the third grade should spend on spelling or how many, if any, years of French the high school should offer, or, I suppose, whether the community should have a guidance program or vocational courses. Let the school board confine itself to ceremonial functions. Educators will decide all curricular matters.

Apparently the national curriculum pattern would be set by national echelons of the profession organized in subject clusters, *e.g.* science-mathematics, social science, and the like. Local modifications would be determined by corresponding local clusters.

Where You Can Go. Does the superintendent come in here somewhere? Well, he and his administrative staff are mentioned several times, but I cannot dis-

cover that they are accorded any function in relation to the curriculum, not even that of helping referee when the subject-cluster people file overlapping claims. What remains for the superintendent? One must assume that he will still be useful in requisitioning supplies and plotting bus schedules. And maybe he can convey the decisions of teacher groups to the board of education for *pro forma* ratification.

One thing the superintendent won't do any more. He won't shanghai teachers aboard a company union. As an administrator he will no longer be eligible for membership in the N.E.A. (which he founded) or in any of its heirs or assigns. It looks as though he would just graduate from being the puppet of the board to being the puppet of a puppet board and a teachers' presidium.

So who will want the job? Surely it will hold small charm for anyone with the augmented training in educational and community leadership which the 1960 Yearbook of the A.A.S.A. envisions. (I wonder whether Dr. Lieberman has read that volume. At one point he questions "the growing trend to require a substantial amount of course work in educational administration for positions in that field." Yet I think he would agree with some of the contentions made in the Yearbook; he likes contention.) I know that Dr. Lieberman contemplates

retaining the superintendent. For at one point he says that the superintendent's removal from the professional teachers' organization, as top management is divorced from the labor force in industrial organizations, may also help to remove some of the unwarranted hostility that teachers feel toward administration.

What about principals? If not too close to topside, they might (like foremen in industry) be considered free enough from conflict of interest to be accepted in the local organization of teachers. If not, they could always have their own group to speak their interest. Yet in the eyes of those who are obsessed over function, wouldn't the transfer of a loved and respected colleague from the classroom to a principalship still turn him overnight into a seven-toed stinker and enemy of the people just as surely as if he were to become superintendent?

Check-Off or Pay-Off. Administrative personnel is thought by the author to be useful in strengthening teacher organizations, "such as instituting the check-off system" in collecting dues. "In return," the organizations would be "aggressive supporters of high administrative salaries. . . . Such a *quid pro quo* would not mean administrator domination . . . but a natural alliance based upon mutual strength and respect." Who would dare to whisper "payola"? The proposed master contracts between school boards and teachers already include the check-off as well as class schedules, pupil discipline, supplies to be purchased, grievance procedures, and the handling of parental complaints.

Remember, too, that "strategy should be based upon the premise that employee benefits are ordinarily not given by employers; they are *taken* by employees," and that "the power of national and state professional organizations must be utilized systematically to affect the outcome of negotiations between teachers and school boards at the local level."

News of the Future. The author foresees the following possible, or even likely, changes to result from professional control of the schools:

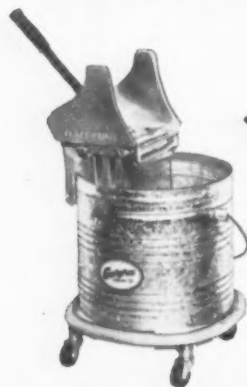
1. A move away from the single salary schedule toward one in which the degree of training and the going rate for it in the open market would have more weight. Why should a teacher of driver education with special training amounting to only a few weeks be paid as much as a physics teacher with five or 10 years of special preparation? "A school board is not going to pay teachers \$10,000 to teach adolescents how to drive safely." Nurses are not paid as much as doctors. Education, like medicine, could well have subprofessional categories.

2. The emergence of elementary edu-

(Continued on Page 144)

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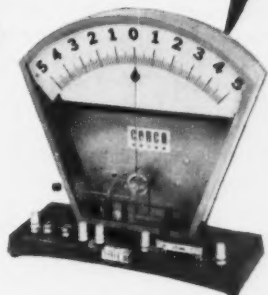
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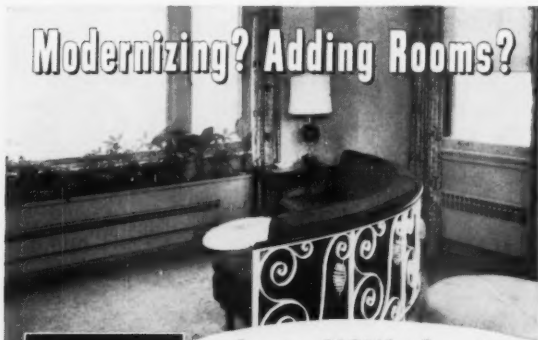
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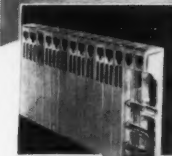


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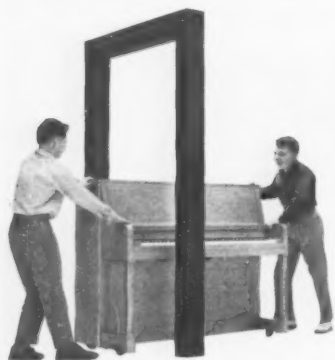
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(Continued From Page 140)

cation as a separate profession within the total body.

3. Teaching teams. These might be made up, for example, of three specialists with seven years of preparation, each directing and supplying inservice training to 17 auxiliary teachers who have only four years of preparation each. This could save money and provide better service. Salary would be based on the difference in training rather than in function, as in the team proposals of Dean Keppel of Harvard. No credit for the general suggestion is assigned him here.

4. A workable system of merit pay. This would be practicable as soon as it became divorced from local appraisal. An independent agency, supported by the fees of applicants, would do the job through written examinations and classroom visitation. The national teaching profession would wield its prestige to ensure that the credential would be honored with a substantial salary increase . . . one which might be abrogated (by whom?) if the teacher failed to perform up to his certificated ability.

5. "A direct economic stake (for the teachers) in the efficiency and productivity of the school system. They should receive a fair share of the difference between the estimated and the actual costs of operating the schools at an agreed-upon level of educational achievement." Truly a cybernetic job!

The Ills We Have. Don't look so hurt over all the criticism and by-passing of the superintendent. You aren't the only one to come off badly. Dr. Lieberman pronounces a plague on everybody's house. Listen to him. "The strategic problem lies with the teachers, their bumbling organizations, and their ineffectual leadership." Most of them are graduates of arts colleges. These have "failed to do a job." They have allowed the humanities to decline. It is sheer effrontery for their professors and administrators to point with alarm at the public schools. They themselves are often responsible for the evils they find there. Most of the criteria suggested by Bestor could well be applied to the liberal arts college. And the American Association of University Professors deserves to be lumped with other teacher organizations as a feeble lot.

The programs of teacher education are a hodge-podge which reflects the irrational controls to which they are subjected. The student in a professional school should have few electives. As things are now students may take the same number of hours, years of them, and not have a single course in common. Teacher training institutions should be drastically reduced in number. Methods courses should be in the hands of the appropriate academic departments. Re-

quirements for certification should be delegated to an agency responsible to organized professional opinion.

The Foundations do not have a sufficient number of good education proposals to support. Most of the laboratory schools have been unable to produce a single significant piece of research during their entire existence. The major emphasis of the Foundations should be upon the legal, administrative and organizational structure of education.

The Conant report Lieberman commends as intelligent, reasonable and free of hobby-horsing. But he assails it as not confronting the matter of autonomy squarely. In presenting it to *school boards* Dr. Conant has merely reinforced the prevailing notion that they should decide professional matters. This is called a disservice.

Still, He Believes. After all the indictments of teachers and those who have schooled them, perhaps one is permitted to marvel at the author's faith that these same teachers, even with the handful of inspired leaders for whom he calls, could suddenly — just because the power has been switched to them — sprout the wisdom to resolve all our problems.

I suspect that too much dependence is placed on imperfect, though carefully considered, analogies with the structure of the fee taking professions, especially medicine. And with the structure of private industry, too. Does the typical busy doctor have time to know whether he is pleased with everything that the A.M.A. leadership does for him and to him? There are those who chafe at bureaucracy even if it is of their own creation.

Dr. Lieberman is utterly sincere in believing that what is good for teachers is good for education and for America. But is it nice to be any part of a monolith? And don't we have enough monoliths now?

Put me down as one of those absurdly moralistic old fools with a weakness for a bit of humankind-ness. Recognizing that there is nothing like a respectable salary to make an occupation respectable, I am still so naive as to believe that the phrase "a scholar and a gentleman" should be indivisible. This reaching for naked or scantily clad power frets my sense of the indecencies. Dr. Lieberman has harsh words for the likes of me.

The State and the Nation's Interest. Isn't it realistic to accept as fact that state authority over education will be with us, as it will be in the Constitution, for a long time to come? That, howl about it as some of us will, there is a basic difference between a profession publicly financed and operated and one which is, for the most part, privately financed and operated. ■

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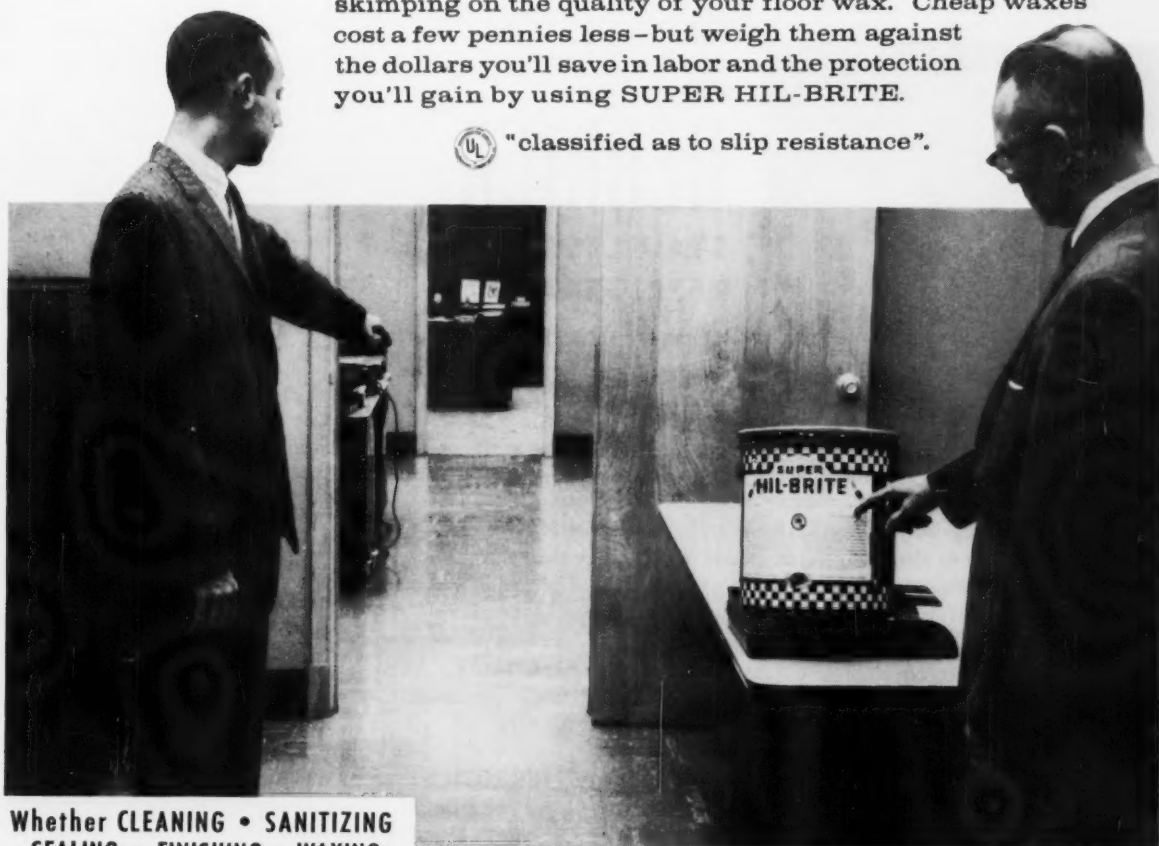
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Elementary Schools

(Continued From Page 73)

should be encouraged to compete with himself; to strive to better his own scholastic record (self-competition) rather than endeavor to exceed his classmates' records (group competition). The five-to-seven year range in scholastic ability among children in Grade 5, for example, presumably was deemed reason enough for avoiding premature pressure for academic competition among young children or pre-adolescents in the middle grades.

There was a distinct increase in the use of tests and other measurement devices during the Fifties, although a large majority of superintendents saw no great need to increase competition and academic pressures at the elementary level. Administrators in the two groups indicated that it was desirable to use examinations to help teachers improve the quality of teaching and to help pupils improve the quality of learning experiences. Testing how well the learner had mastered assigned subject matter was deemed subordinate to the use of testing to

help each child do the best he could to work at his level of ability.

Both standardized and teacher-made tests were more widely used in 1959 than in 1949. In the schools administered by the established leadership group, the scope of the testing program had more than doubled despite the fact that testing programs had been well established a decade earlier. In the general sample, the use of examinations had tripled, a finding which suggests that many U.S. schools may be making a strenuous effort to evaluate their programs and to make improvements in any deficiencies that can be identified by tests.

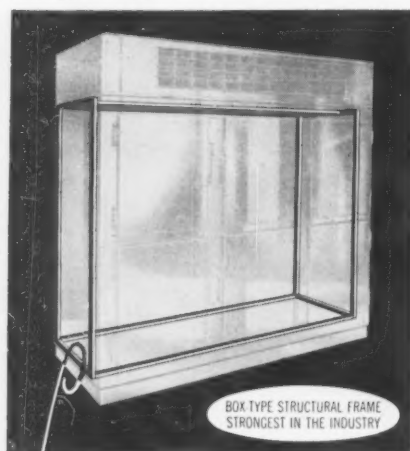
An interesting aspect of the renaissance in testing was the increase in the use of essay-type examinations at the elementary level. A number of educational leaders appear to have taken seriously the statement that children need more opportunities to develop expressive skill through writing. Whatever the explanation, essay quizzes were in greater vogue in 1959 than they were 10 years earlier.

So-called homogeneous grouping increased in popularity toward the close of the decade, according to reports from the 183 school districts.

During the 1949-50 school year only five schools in the larger sample of 154 had employed ability grouping. Last year, after a decade of reappraisal and decision, 35 districts grouped by ability, and 14 of these had extended the plan downward to include the primary as well as the middle grades. In the 29 systems supervised by the established leadership group, ability grouping doubled, although it was seldom used below Grade 4.

Most places with the X,Y,Z type of grouping used a variety of means to determine how children would be placed in groups of slow, average and fast learners. The most common criteria were intelligence test scores, achievement tests, and teachers' professional opinion.

The increase in ability grouping was perhaps the major evidence of conservative educational thought to be found among the trends in the several practices with which the survey was concerned. Since the proponents of progressive education have usually opposed homogeneous grouping, advocates of fundamental or basic education can take pleasure in an initial skirmish won! (Cont. on p. 148)



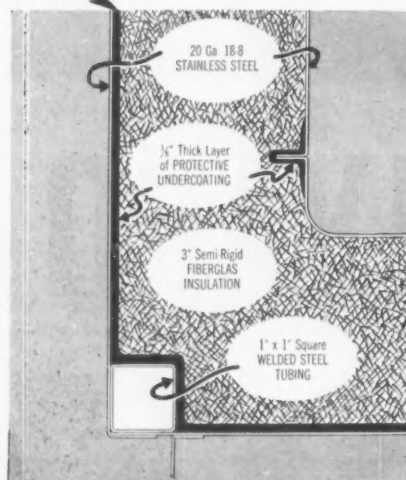
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Herrick's new welded steel frame is a *complete* unit. It gives *full support* to the refrigerator. Made of 1" square steel tubing. Precision welded in compressed-air jigs for perfect alignment. Securely reinforced to prevent warping or buckling. Undercoating on inside of cabinet shell acts as effective vapor seal. Thick layer of Fiberglas insulation forms highly-efficient heat barrier. Stainless steel exterior and interior with No. 4 mill finish provides lasting beauty and utility. Investigate the new HERRICK.

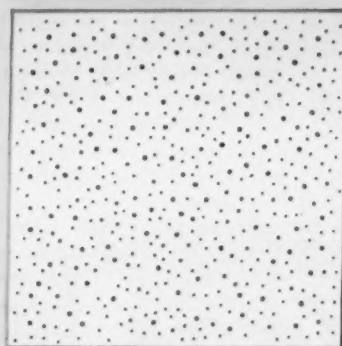


**Here's how HERRICK'S
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gives you greater
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refrigerator dollar**

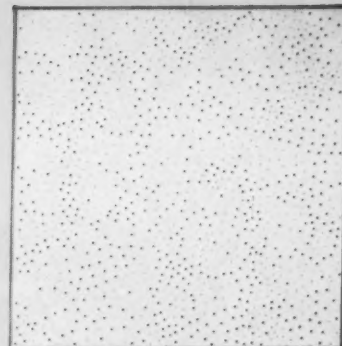
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UNGHP!



A Kewanee Keeps Hands Clean

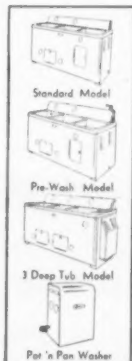
Who wants to grope for dishes through slimy, greasy dishwater—or scoop handfuls of soggy garbage from the sink drain? You don't—and neither do your employees. *Everybody's* happier when a Kewanee Dishwasher takes over the job, its 400 gal./min. Force Flow Pump creating a surging, churning "live water torrent".

Wash water stays hot, too, because a Kewanee is equipped with its own burners, either gas or electric. Rinse water is kept at a bacteria-killing 180°, and the hot dishes dry quickly in the open air with no toweling to recontaminate them or take up employee time.

Other advantages? There are savings on hot water, soap or detergent, dish breakage—and on the stock of dishes required. A Kewanee can wash, rinse and air-dry up to 2000 dishes, glasses and utensils per hour—more than a match for your rush-hour traffic.

Prices start at \$429, F.O.B. Kewanee, Ill. There are three models to choose from—standard two-tub . . . pre-wash with two tubs and spray for gross soil . . . three-tub model providing second rinse, hot water or chemical. For complete information—plus facts on the sensational Kewanee Pot 'n Pan Washing Unit—write:

Kewanee
DISHWASHER
802 Burlington Ave.
Kewanee, Ill.



(Continued From Page 146)

The matter of administrators' attitudes toward promotion policies is an exceedingly tricky one to interpret. In essence, none of the schools reported policies promoting "100 per cent" of the pupils enrolled, and failure rates in their districts sometimes were substantial.

Those essentialists who contend that children should not be promoted until they have mastered certain minimum essentials in a given grade can find little comfort in this survey. Despite criticisms directed at liberal promotion practices (sometimes inaccurately called "100 per cent promotion policies"), more than two-thirds of the 183 superintendents rejected the idea that progress through the grades should be governed solely by whether a child has completed prescribed, basic academic requirements as a requisite for advancement to a higher grade.

These administrators also believed that few elementary school children should repeat a grade, and that their rate of progress largely should be decided on the basis of individual effort and ability rather than by success in conforming to group standards.

The charge that many such schools permit children to pass into higher grades regardless of whether they have learned anything is sheer nonsense. It is more truthful to say that most superintendents clearly recognized that children grow at uneven rates and should not arbitrarily be failed because they stand low in their class during a given year.

Prevailing promotion policies in the 183 districts suggest that considerable success has attended efforts to help children stay with their age-mates in school. Only 11 superintendents said that their systems had failure rates at the primary level that were higher in 1959 than they were in 1949. In the intermediate grades, at the end of the decade, there were four fewer districts with failure rates of 3 per cent or above than there had been in 1949. Since an average of 10 to 20 per cent of the children in the general leadership schools already were repeating at least one grade out of six during the Fifties, the apparent resistance to higher failure rates seemed desirable.

Special programs and provisions for the academically able child have increased sharply in recent years, perhaps because of national concern lest

we waste the intellectual power of our youth. In the established leadership schools, for instance, there was a 200 per cent increase in the number of special classes for fast learners. The 154 districts chosen at random registered a comparable gain, segregated groups for the academically talented having jumped from 34 in 1949 to 91 in 1959.

As one might conclude from these figures, many superintendents are no longer confident that the needs of individual learners adequately can be met in heterogeneous or chance groupings. What this growing sentiment presages for the future is quite significant.

Another set of questions dealt with whether U.S. schools, in the manner of certain European national systems, should endeavor to provide basic literacy for all citizens or focus their efforts on academic programs designed to establish and maintain an intellectual elite. Despite the endemic interest expressed in improved programs and opportunities for intellectually superior children, majority opinion among both groups of superintendents strongly rejected any type of schooling structured to create an educational caste system in America.

Educational leadership thus retains the long established point of view that no single group of American children is more worth educating than all children. At the same time these superintendents believe that mass public school education must vary according to differences in pupils' mental ability, so that we may preserve the quality of educational opportunity as well as maintain the quantity of schooling provided.

Despite the confusing educational storms created by 10 years of debate and reappraisal, school administrators today are not floundering like beached whales. Instead, they appear to stand together with marked unanimity in their ideas as to what constitutes "good" education for all children. Statistical analysis of the survey responses indicated that both established leaders and the random sample of administrators have, on the whole, become more liberal in the face of pressure for a return to conservative educational practices. Above all, they radiate the conviction that we must continue to extend educational opportunities, without partiality to all children during the Sixties. ■

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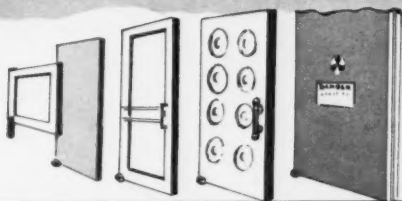
81



DOOR CLOSER styles and variations

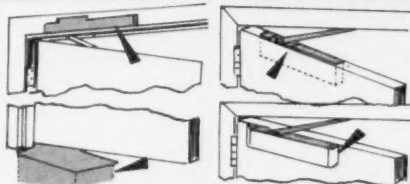
to meet every requirement and preference

DOOR WEIGHT requirements



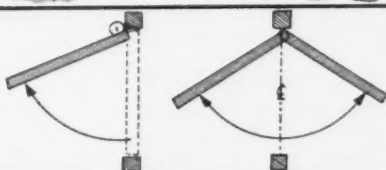
styles for doors, 12 lbs. to 1200 lbs. — light office rail gates, to extra heavy lead-lined doors.

CLOSER MOUNTING requirements



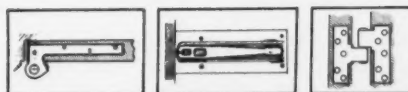
styles for mounting in the floor, in the jamb, in the door, on the door.

DOOR ACTION requirements



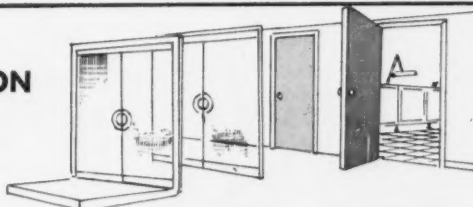
styles for single acting and double acting—both light and heavy doors.

DOOR HANGING preference



styles for offset hung doors, center hung doors and butt hung doors.

DOOR LOCATION requirements



styles for entrance, vestibule, corridor, all interior doors, toilet stall doors and office rail gates.

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NEWS IN REVIEW

A.A.C.T.E. Convention Told of Needed Research and Recent Developments in Teacher Education

CHICAGO. — "On the assumption that the true function of education is to develop to the full the intellectual abilities of individuals, we must intensify and explore more deeply the nature of learning and what takes place when learning occurs and the mind matures."

This is one of the four general areas of "obvious unknowns" that Roy M. Hall, assistant commissioner for research for the U.S. Office of Education, defined at the 12th annual meeting of the American Association of Colleges for Teacher Education held here February 10 through 13.

"A second field for investigation emerges from the renewed debate of education for the adjustment of the in-

dividual *versus* education solely to foster higher standards of academic achievement," Dr. Hall continued. "It is unfortunate that we use tests almost exclusively to judge whether students measure up to some well defined and quite restricted standard of expectancy, rather than to discover what students are like, what they want to do and can do, and the barriers which stand in the way of their developing into self-directing and self-respecting individuals," he said.

Dr. Hall called for more and better tests "to discover more accurately what each individual is like in terms of his capacities and developmental patterns."

He believes that the intensity and direction of nonschool influences on the

educational development of students must be more fully understood, and that the true relationship between subject matter and process in education needs exploration.

L. D. Haskew, dean of education at the University of Texas, was to deliver the first Charles W. Hunt lecture at the opening session of the convention. A storm prevented his arrival. His speech, in which he called for stronger professional leaders, was read by Harvey M. Rice, president of Macalester College, St. Paul.

A. A. C.T.E. members attending one of the section meetings heard William C. Kvaraceus, professor of education, Boston University, assert that teachers today have little or no patience with problem students, and that "their irritability level is low and getting lower."

(Continued on Page 164)

High School Junior Builds Apparatus To Replace Heart

DETROIT. — Edward Shaw, a junior at Henry Ford High School here, has con-

ceived, built and successfully operated a profusion apparatus to replace the heart in keeping up the circulation of blood.

Made of material salvaged from a laboratory and shops, the machine has a double-action valve and operates with a rebuilt electric motor. Technically termed a profusion apparatus, it circulates and oxygenates blood.

The student perfected the machine after a year and a half of study and labor. He has been able to keep a pork kidney alive for 36 hours through the use of the machine.

Not satisfied with this performance, young Shaw is working to further perfect the apparatus so that a kidney may be kept alive for a longer period of time.

To Hold Fifth Institute on Curriculum Research

PALO ALTO, CALIF. — Scholars will report on research of the factors that interfere with and facilitate the development of human uniqueness at the Western section of the fifth Curriculum Research Institute to be held here from April 30 to May 4.

Purposes of the institute include the translation of research findings in the behavioral sciences into educational practices, the stimulation of curriculum research and field study in school situations, and the identification of areas for research and field study on human variability and learning.

The institute will be sponsored by the Association for Supervision and Curriculum Development, N.E.A., in cooperation with the National Institute of Mental Health.

Stops Tuition Payments to Catholic Schools

BURLINGTON, VT. — The use of public funds to pay tuition for students attending Catholic high schools has been ruled unconstitutional by a superior court judge here.

Judge William G. Hill made the ruling on a petition brought against the South Burlington school board by a citizen.

Because the suburb has no high school, the local board has been paying tuition for students who must go to high school elsewhere, including those who attend two Catholic schools here.

Judge Hill held that the payments to the Catholic schools violated the First and 14th Amendments to the Constitution and Art. III, Chap. 1 of the Vermont constitution. They presented "a direct conflict between sectarian education convenient to parents and guardians and paid by public tax monies, and the separation of church and state," the judge said in his official statement.

Reports Drop in School Construction Last Year

NEW YORK. — Contracts for educational buildings last year totaled \$2.6 billion — a drop of 8 per cent from 1958, according to a year-end review of construction contracts recently published in *Building Business*, a monthly bulletin of the F. W. Dodge Corporation.

School building was still the fourth largest construction category, exceeded only by single-family homes, commercial buildings, and highways, the bulletin states.



PORK KIDNEY was kept alive for 36 hours through profusion apparatus built by Edward Shaw, junior at Henry Ford High School, Detroit.



Light-colored floor? Vinyl problem? Anti-slip requirement?
Super Flor-Treat is your answer



For a beautiful anti-slip floor finish that contains no wax, MULTI-CLEAN all-resin *Super Flor-Treat* is unexcelled.

It may be used on asphalt, rubber, or vinyl tile, linoleum, terrazzo, wood, or concrete, and is a real problem-solver in these situations:

For Light-Colored Floors. Water-white *Super Flor-Treat* dries to a light-colored finish that won't yellow the lightest of floors (even white ones)!

When Insurance Regulations prohibit use of wax, *Super Flor-Treat* gives an easy-to-clean, self polishing, glossy finish that will match the best waxes in every respect including *scuff-resistance, buffability, and ease of removing.* It is listed by U/L as an anti-slip material.

On Vinyl Tile, and other floors to which wax will not adhere satisfactorily, *Super Flor-Treat* may be applied without crawling or puddling. On such floors it

is often used as a base for wax.

Faint But Pleasing Aroma makes it more pleasant to apply than sealers with objectionable odors.

Used as a base, *Super Flor-Treat* tends to restore color and brilliance to old, faded tile. Wax lasts longer when *Super Flor-Treat* is used as a base. Or, used alone, it gives a handsome, durable, highly water-resistant finish of which you can be proud.

Super Flor-Treat is just one of 27 modern cleaners, sealers, and finishes developed by MULTI-CLEAN Research. For more information on these materials and the scientific MULTI-CLEAN METHOD for maintaining your floors, call your local MULTI-CLEAN Distributor or write to Multi-Clean Products, Inc., Dept. NS-69-40, St. Paul 16, Minnesota.





A Brand New World for Johnny

AO Projection Magnifier—low-cost reading aid offers a new world of learning for children with impaired vision. Now, many can attend regular classes with their more fortunate classmates. The AO Projection Magnifier is portable—just plug in and switch on. Place

reading material—standard text books, magazines or newspapers on free-moving platform and read direct from 4½" x 12" illuminated screen. Two models available—one enlarges 3 times; the other, 5 times.



AO H-R-R Color Vision Test—More comprehensive than any other single test available. A simple, reliable, yet inexpensive method for detecting, classifying and estimating the degree of Red-Green and/or Blue-Yellow color vision deficiencies. The AO H-R-R Color Vision Test is approved by the Inter-Society Color Council. For most people testing requires but a few seconds... but can save years of frustration when conducted early enough to guide vocational endeavor.

AO School Vision Screening Test—One out of five school children need professional eye care. The AO School Vision Screening Test is the best way to determine who they are. It presents the basic Massachusetts Vision Test elements fast and efficiently at the standard 20 feet and 16 inches. By simple "pass-fail" tests you can readily determine which children should be referred to an eye specialist for possible vision care. Entire unit folds into compact carrying case... can service any number of schools.



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Dept. D35—Please send full information on:

- ☐ AO Projection Magnifier
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Cultural Influences Studied at A.S.C.D. Convention

WASHINGTON, D.C. — Social and cultural influences on education were spotlighted at the 15th annual conference of the Association for Supervision and Curriculum Development, held here March 6 through 10. This convention theme was the subject of the opening general session address by Agnes E. Meyer, author and journalist.

Taking office immediately after the conference were the new officers, elected by mail during late 1959: president, Arthur Wells Foshay, executive officer, Horace Mann-Lincoln Institute of School Experimentation, Teachers College, Columbia University; president-elect, William Van Til, professor and chairman, department of secondary education, New York University; and member of the executive committee, Lillian C. Pauker, director of upper elementary curriculum and instruction, Milwaukee, who succeeds Susan Crutchfield of Galveston, Tex. Five new members-at-large also begin serving their terms on the board of directors.

Margaret Gill, executive secretary since July, made her first report to the convention at the business meeting.

Holdover members of the executive committee are: Chester Babcock, executive director, department of instruction and curriculum research, Seattle; Lavone A. Hanna, professor of education, San Francisco State College, and Marcella R. Lawler, department of curriculum and teaching, Teachers College, Columbia University.

Upon retiring from the presidency, William M. Alexander, who is chairman of the department of education, George Peabody College for Teachers, automatically became vice president, succeeding Jane Franseth, U.S. Office of Education, 1958-59 president.

A comprehensive review of the convention will be reported by Leo E. Buehring in the May number of *The NATION'S SCHOOLS*.

Discontinues Use of Television for 'Direct Teaching'

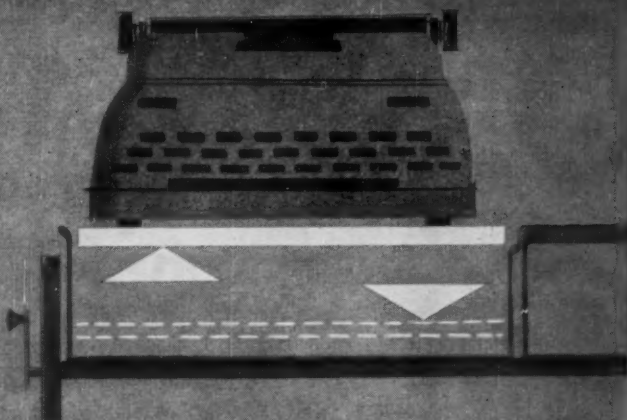
WASHINGTON, D.C. — Public schools here will no longer use television for teaching science to fifth and sixth graders, Supt. Carl F. Hansen recently announced.

After giving television a "fair trial," he concludes that it is "greatly overrated" as an instructional tool.

"We intend to continue using television as a supplemental resource," Supt. Hansen said. "It can be valuable as a means of enriching the educational diet. But we no longer believe that television can be used effectively for direct teaching of basic subjects."

SHORT OR TALL

Convenient new hand crank easily adjusts lower ... or higher for correct forearm position.



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Models for both left or right-handed students available.

*only Royal desks custom-fit
all your typing students!*



Now Royal offers a desk that fits every student, accommodates largest electric, or manual typewriters. Sturdy, vibration-free, V-braced square tubular steel frame, durably finished in oven-baked Plastelle enamel...platform and cabinet-top in lacquered Birch hardwood or mar-proof Fibersin, handy pull-out dictation shelf...storage space for books, supplies. Rubber glides protect floors, deaden noise, prevent creeping. Overall: 35½" long x 19" deep x 30" high.

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Matching Typing Chair, Model 1730: Comfortable, four-way adjustable back; contoured Birch seat for fatigue-free posture.

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Ford B-750 Series rated at 22,000 lb. GVW for 60- to 66-passenger bodies. New 7,000-lb. front axle and 18,000-lb. rear axle with larger brakes optional.



FORD School Bus Safety Chassis

Ford's School Bus models, with economy features certified in tests by America's foremost independent automotive research organization,* offer greater value for your transportation dollar. They're unsurpassed in safety and durability—put you way out front in economy with modern Short Stroke engines refined to squeeze outstanding power from every gallon of regular gasoline.

And the strong, parallel ladder-type frame provides the proper base to handle large-capacity bodies safely. Channel reinforcements from front to rear springs add extra frame strength to big B-700 and B-750 models. All important component parts—axles, frames

and springs—have the stamina and durability you need for school bus operation.

For greater flexibility, Ford offers a wide choice of key options to "custom tailor" a chassis to fit your exact requirements. New, higher capacity front and rear axles for most models plus larger brakes and bigger tires are available to provide that extra margin of safety and durability.

Stop in and visit your local Ford Dealer for complete details. Ask to see the "Certified Economy Book" for the kind of savings you can expect with a 1960 Ford School Bus Safety Chassis in your operation.

*Name available on request. See your Ford Dealer.



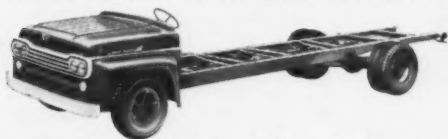
Choose the exact chassis capacity you need from Ford's four School Bus Series . . .
they all meet and often exceed the safety requirements of the National Education Association



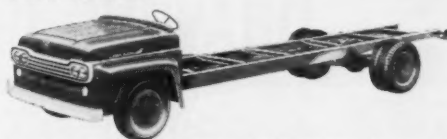
B-500 — 154-inch wheelbase for up to 36-passenger bus bodies; GVW 15,000 lb.; 139-hp 223 Six, 172-hp 292 V-8 or 180-hp 292 Heavy Duty V-8 engine. Big 13,000-lb. rear axle is standard with V-8's, optional with the Six; available both single- and two-speed.



B-600 — 192- or 220-inch wheelbase for 48- to 54-passenger bodies; GVW 17,000 lb., optional, 19,500-lb.; 139-hp 223 Six, 172-hp 292 V-8 or 180-hp 292 HD V-8. New 16,000-lb. rear axle with larger brakes is now available.



B-700 — 245- or 262-inch wheelbase for 60- to 66-passenger bodies; GVW 21,000 lb., optional, 22,000 lb.; 172-hp 292 V-8 or 180-hp 292 Heavy Duty V-8 engine. New 7,000-lb. front and 18,000-lb. rear axles with larger brakes are optional.



B-750 — 245- or 262-inch wheelbase for 60- to 66-passenger bodies; GVW 22,000 lb.; 194-hp 302 Heavy Duty V-8 engine. New 7,000-lb. front and 18,000-lb. rear axles with larger brakes are optional. 11-22.5 front and dual rear tires are now available.

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BUILT TO LAST LONGER, TOO!

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These economical STACOR units last a lifetime...let you make the most of your space...and your budget. From the day they're installed, there's no replacement...minimum maintenance.

STACOR Multi-Student Drawing units are flexible! 3 basic cabinet units combine with desks to serve from 6 to 12 students efficiently at each unit.

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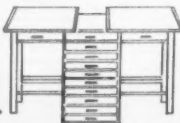
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Believes Talented Students Need Motivation

AUSTIN, TEX. — Talented high school students, even though they are discovered and enabled to attend college, may not live up to expectations unless they *want* to use the aptitudes they possess, declared E. G. Williamson, dean of students and professor of psychology at the University of Minnesota. He was speaking at a conference for high school counselors and student advisers held here recently at the University of Texas.

In some cases, colleges "have failed to induce effective learning motivation even in those of high talent," he asserted.

Dr. Williamson suggested that perhaps "we counselors have been so occupied with helping a few borderline cases become eligible for continuation in college that we have neglected those with a high level of ability who are also in need of personal attention and assistance."

Proposes Public Work Program for City's Nonlearners

CHICAGO. — A work-study program for teen-age boys who do not learn in school was proposed here recently by Robert J. Havighurst, professor of education at the University of Chicago, and authority on juvenile delinquency.

Dr. Havighurst told a conference attended by organization leaders that the school bus could pick up the boys in the morning and drive them to parks or beaches where they could work with rakes and shovels, doing things of civic value that wouldn't otherwise be accomplished.

The participants would learn to work in groups and take orders, and would be graded on such things, he said. In the afternoon, they would return to academic work carefully adjusted to their ability.

Twenty per cent of the city's youth are nonlearners, Dr. Havighurst estimated. He said that they experience repeated failure and frustration by being legally required to remain in school until the age of 16.

Sale of Candy in Schools To Stop

CHICAGO. — Candy will not be sold in public elementary schools here after the current supply is exhausted. Supt. Benjamin C. Willis made the recommendation, which the board of education agreed to accept, after Dr. John L. Reichert, a pediatrician and member of the board, contended that children were learning bad nutritional habits in lunchrooms.

Chicago schools sold \$170,443 worth of candy in 1959, making a profit of \$61,704, Supt. Willis reported.

The Man with the Lily Plan has the right answers to your lunchroom problems!



Lily Food Service Saves You Time...Money...6 Ways!

Individually, or in complete place settings, Lily* food service makes your lunchroom program easier . . . more efficient . . . more economical! Here's why:

- **Sanitary** — No chance of sanitation slip-ups here!
- **Controls Portions and Food Costs**—Lily offers the right size cup, container, dish or plate for every need.
- **Eliminates Washing and Bussing** — After use, they're thrown away. No more expensive machinery and labor needed to wash or buss. Speeds cleanup time, too!
- **No More Breakage—Accidents** — Lily paper service is safer for children . . . economical for you!
- **Saves Storage Space and Handling**—Stack easier, more compactly than traditional chinaware. Are about 30 times lighter for easier handling!
- **Quiet**—No rattle or clatter of other types of service. Makes eating more pleasant for students and staff alike!

And if you are transporting and serving from a central kitchen, paper service can be kept in inventory "on location"—

save handling, washing, storage. Shown above (left to right) are just a few of Lily's Food Service products that are being used in more and more school lunchrooms across the country.

- #1. 4-oz. Pleated Dish for salads and desserts.
- #2. 5-oz. Cold Cup for juices.
- #3. 8-oz. Hot Food container for soups, stews, casseroles. (You can bake and serve right in these Lily unwaxed Nestrites.®)
- #4. 6-in. Molded Plate for breads, pies, cakes.
- #5. 10-oz. Milk Design Cup (to be used with cup holder). Ideal for serving milk from refrigerated bulk dispensers.
- #6. 10¼-in. Molded Plate for all entrees.

Think it over. Doesn't it make sense to serve the Lily way, and eliminate practically every serving problem you have?

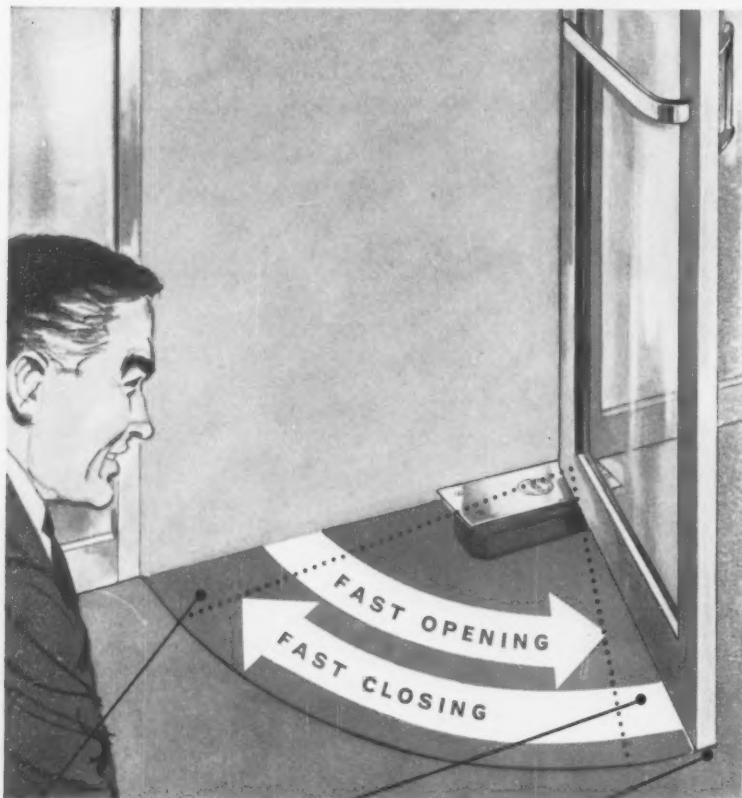
For further information on Lily Food Service . . . without cost or obligation . . . just write to:
 Lily-Tulip Cup Corp., Dept. NS-40, 122 E. 42nd St.,
 New York 17, New York. *T.M. Reg. U.S. Pat. Off.



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Hydra-Cushion Door Control

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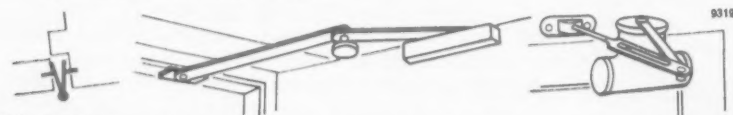
Latching speed slowed by hydraulic cushion

Shocking stops overcome by Hydra-Cushion slowdown

Positive back stop 90° or 105° hold open 90° or 105°

The new Dor-O-Matic Hydra-Cushion concealed-in-floor door control gives maximum protection to doors and frames. Stops and overhead holders which cause damaging shock when doors are banged open are unnecessary! Now doors are gently cushioned to a stop by an adjustable hydraulic action as they approach open position. No need for expensive, heavy-duty anchor or pivot reinforced hinges because the Dor-O-Matic Hydra-Cushion eliminates the damaging stresses transferred to hinges and door frames when doors are brought to a smashing halt. Positive built-in back stop . . . and built-in hold open . . . eliminate door or floor applied stop devices.

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Electronic Devices Featured at D.A.V.I. Convention

Reported by **WALTER WITTICH**

CINCINNATI. — What was probably the largest display of audio-visual educational tools and materials ever assembled at an education convention was displayed in the exhibit hall and on three floors of the Netherland-Hilton Hotel when the National Department of Audio-Visual Instruction of the N.E.A. convened here early in March.

Seldom in American education has as much attention been given to the classroom use of electronic communication devices and learning systems. To attention-arresting displays of sound motion picture equipment, still projectors, and television systems, both closed-circuit and open, there was added the latest developments in language laboratories and teaching machines. One entire floor was given over to teaching machine displays.

Recent developments in foreign language teaching laboratories were evidenced in a variety of adaptations of the tape recorder to the problems of language instruction. Installations varied from simple and inexpensive individualized pupil-teacher two-way instruction channels to elaborate automatic centrally controlled banks of cartridge load playback devices which would enable an entire class to work at their individual problems on an individualized progress basis.

New models of audio-visual equipment already known and in widespread use characterized the body of the display. Included were automatic slide projectors, filmstrip projectors capable of carrying on their own photographic sound track, improved versions of opaque projection devices, viewgraph projectors incorporating animation and color, and further refinements of closed-circuit low-cost intramural television systems varying in price from \$500 and up.

However, with all of these language laboratories and teaching machines much remains to be done in working out programs of instruction.

U.S. Complacency, Ferment

As keynote speaker, Ernest O. Melby, professor of education, Michigan State University, voiced the theme of the convention as he contrasted the alarming complacency characteristic of most aspects of American life with the current social, economic and political ferment.

Dr. Melby warned that tools and equipment are not enough. The teaching force, along with administrators and supervisors, must face up squarely to the task of utilizing these devices in the interests of a humanitarian kind of education which will capitalize on the many scientific advances that we have achieved. Dr. Melby's words were of particular importance for the audio-visual group, because cer-



View of the student lounge in the Burnsville school in Savage, Minnesota, showing an imaginative use of Natco ceramic glazed Vitritile. Architects: Haastick Lundgren & Associates, Inc.

Today there are many new, exciting uses of NATCO VITRITILE

Yes, today imaginative minds are blending Natco ceramic glazed Vitritile in harmony with other compatible building and decorating materials to create modern showplaces of color and design.

Vitritile, available in a complete selection of modern field and accent colors, offers an unlimited choice of color combinations. And, because the colors are permanent, walls will retain their original "new look" for the life of any building.

Combine your creative talents with the functional and decorative qualities of Natco structural clay facing tile on your next building job. Write for catalog S-59.



Vitritile comes in three nominal face sizes: 8" x 16", 5 1/2" x 12" and 5 1/2" x 8".

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There's no question about it. Bruning Copyflex copying machines have come to stay in school offices across the country. They have proved their ability to eliminate slow, costly clerical copying, save hundreds to thousands of dollars annually in the preparation of transcripts of student records, progress reports, examination sheets, purchase orders, and a host of other paperwork.

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of information. No proofreading.

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tainly within this field one sees continuing evidence of the opportunities which the tools and technics of audio-visual instruction hold, provided, of course, that we learn how to use them intelligently and in the direction of attaining the high social purposes of a public education system.

Dean John E. Ivey, president of the Learning Resources Institute, New York, told how we can put the resources of a scientific technology to use in the interests of education for survival.

As one who has a definite answer, Dean Ivey outlined the plan for air-borne television as a medium which, if successful in the Midwest when it goes into operation next September, can be expanded on a national scale and beyond — to foreign countries.

Training A-V Specialists

W. K. Beggs, dean of Teachers College at the University of Nebraska, commented on the role of teacher training institutions in the preparation of audio-visual specialists.

"Psychology of learning, curriculum planning and development, administrative competency, supervisory technics, evaluation, management and personnel relations are all standard offerings in any modern teacher education program. Moreover, the audio-visual divisions of these colleges and their laboratory schools are ideal for apprenticeship and intern experience," he said.

Four "avenues of international cooperation" were presented by Edgar Dale, professor of education, Ohio State University. One was:

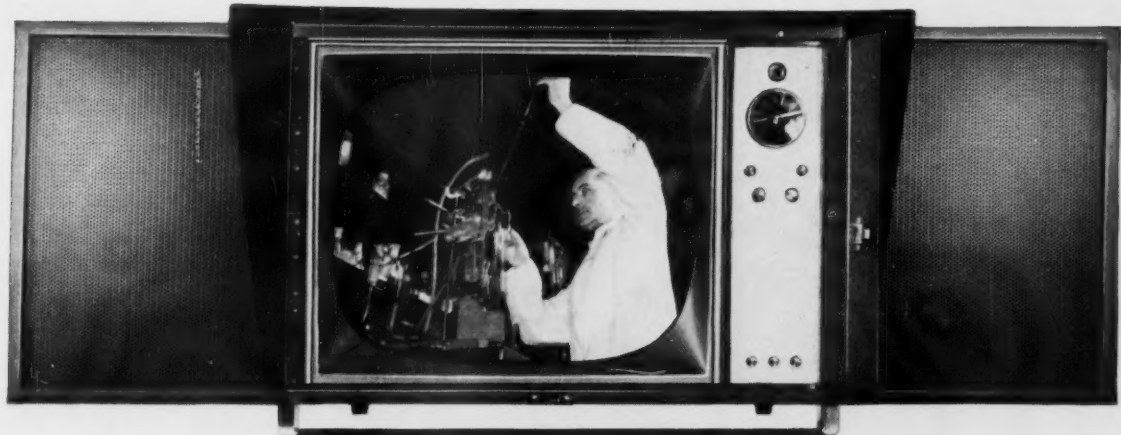
"I strongly recommend that in the framework of a worldwide literacy program we make a vigorous, experimental attack on the possibility of the use of film, filmstrip and radio in teaching reading or in supplementing reading instruction.

"The value of these instruments in teaching adults to read is not known; it has not been adequately researched. We do know, however, that these electronic tools are enormously valuable in conveying ideas which, when combined with reading, make a powerful communication tool."

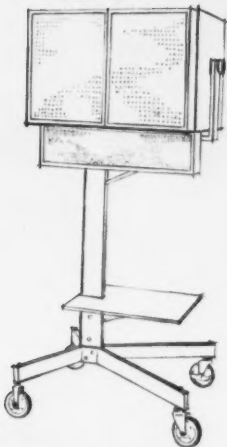
Acting as hosts to this large-scale and successful convention were: E. E. Holt, state superintendent of public instruction for Ohio; Wendell H. Pierce, superintendent of Cincinnati public schools, and Charles B. Crouch, superintendent of Hamilton County schools.

Walter S. Bell, president of the Department of Audio-Visual Instruction for 1959, installed as new president James D. Finn, professor of audio-visual education, University of Southern California, and announced the election of Ernest Theiman, supervisor of A-V education, University of Texas, as president-elect.

RCA VICTOR announces the first television designed and engineered specifically for education



The Lyceum is a new RCA Victor development in educational television . . . engineered especially for the classroom.



Check these features: "Fan-out" light shield to reduce glare and reflection . . . Two 8" RCA extended-range Duo-Cone speakers, 10-watt amplifier, providing room-filling power . . . VHF-UHF operation . . . 25% brighter picture, greater contrast for easy daylight viewing . . . 262 square inch *viewable* picture . . . Locks on speaker doors, control panel cover. Tamper-proof back cover . . . Super Signal Guide Tuner for outstanding reception . . . One-set electronic fine-tuning . . . Automatic channel equalizer . . . Tube Guard . . . RCA Security Sealed Circuits . . . Phono and stereo jacks . . . plus these optional accessories: 5-foot mobile stand with easy-rolling heavy-duty 5" rubber tire casters . . . Extra twin-speaker unit with 50 feet of cord . . . Accessory shelf to accommodate phonograph, tape recorder, books, or other classroom equipment.

These, and many others, are the features which make RCA Victor's Lyceum the outstanding unit for educational TV.

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Hamilton units are built for school use. They're constructed of selected northern

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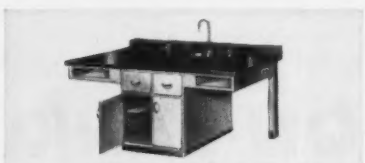
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Electronic console control station and selection of student cubicles designed for maximum convenience and sound control. Provide flexibility in all types of language and audio-visual instruction. Look for details in next month's ad.



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Specially designed for semi-micro, multiple-class use. Two- and four-student desks, standing or sitting height. Large storage capacity, durable top surface. For any number of daily classes.

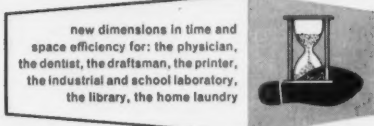


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New York Reports Increase in Number of Male Teachers

NEW YORK. — Men now occupy more than 31 per cent of the teaching and supervisory posts in the public schools of the state. This compares with 13 per cent 30 years ago, the *New York Times* recently reported.

"Women understand girls better than boys. Men understand boys better than girls. Both are needed in the elementary and secondary schools," remarked Dr. Walter Anderson, acting dean, school of education, New York University.

Soft, Furry Love. A children's story about a white rabbit and a black rabbit has forced the resignation of Alabama's director of public libraries. Criticized by a state senator because the book, "The Rabbits' Wedding," was allowed on general circulation shelves, Emily Reed has resigned effective late this month. Garth Williams, who wrote the book, says it is for children from 2 to 5 "who will understand it perfectly. It was not written for adults who will not understand it is only about a soft, furry love and has no hidden message of hate." The author and illustrator says he colored the rabbits black and white to differentiate between the characters. "I was completely unaware that animals with white fur were considered blood relations of white human beings," says Mr. Garth. The criticism of Miss Reed was led by State Sen. E. O. Eddins, who said the book was propaganda for integration and interracial marriages.

They're Interested. A battle for the mind is raging in India and the combatants are the United States, the Soviet Union, and West Germany, says David Dodds Henry, president of the University of Illinois. Dr. Henry, who just returned from a two-month front line view of the battle, reports that the three powers are trying to outdo one another in providing assistance for colleges and universities to win the friendship of "that strategically important nation," and that the Indians seem "very interested in the American plan for education." He says he is especially impressed with the nation "hard-pressed to feed its people and yet setting aside money for education." Turning to America, Dr. Henry says, the Indians are interested in the way the United States solves its mass education problems.

Snow Job. A plane crash in March dumped two Glencoe, Ill., school officials into 5 feet of snow in a Wisconsin cornfield. Jack L. Cushman, principal of West Elementary School in the Chicago suburb was piloting a single-engine

rented plane from Hales Corners, Wis., to Rockford, Ill., when the plane developed engine trouble. His passenger was John A. Edwards, business manager of the Glencoe school system. On landing the plane flipped over. The gentlemen walked uninjured to a near-by farmhouse and summoned help.

Kinsey's Cousin? Cecil M. Cook, high school physiology teacher, requested his class in Van Nuys, Calif., to fill out a questionnaire asking if they had ever engaged in any of a list of sexual activities. The students complied and the teacher announced the results in class, leaving out names. However, it took a decision of the state board of education to exonerate Mr. Cook, who found himself on "personal leave" as a result of his action. Members of the board said they could find nothing in Mr. Cook's actions to warrant lifting his teaching credentials and cleared him of charges of immoral or unprofessional conduct. But the board, in a 7 to 0 decision, criticized Mr. Cook for "poor judgment."

Everybody's in the Act. Philip H. Willkie, son of the late Wendell Willkie, 1940 Republican Presidential candidate, has proposed a sweeping reform of the American school system, supposedly to equip the nation's youth with the knowledge necessary to win the war of ideas with Soviet Russia. Mr. Willkie complains that Americans heretofore have left the subjects to be taught in their schools to a small group of professional educators who, he says "have confused education with training." (Sound familiar, Rick?) "They" [the educators], says Mr. Willkie, "have said that a large percentage of American boys and girls are incapable of mastering the basic academic subjects. Educators have thought it wiser to train them in vocational skills than to frustrate them with intellectual problems that are beyond their reach."

Worldy and Over the Mountain. Amish parents, proclaiming that their faith is older than their government, have refused to send their children to a \$2 million school in Morgantown, Pa. The spacious Twin Valley High School, 10 miles from Amish homes, or "over the mountain" in the Pennsylvania Dutch spoken here, is considered by the parents to be too worldly for their children. "We aim to make good citizens, self-supporting farmers, and Christians of our children," an Amish spokesman writes, in reply to a school board ultimatum to get the children into school or else. "Our religious convictions direct us to stay away from secondary high school attendance."

Successor to Daisy Howard Named by Genesee Board

FLINT, MICH. — Claude M. Elmore, assistant superintendent of schools of Oakland County, Pontiac, Mich., has accepted a three-year contract at \$12,000 a year as superintendent of Genesee County Schools, Flint. Mr. Elmore succeeds Mrs. Daisy Howard, superintendent of Genesee County schools for 30 years.

Mrs. Howard was dismissed by the board last November 10 with several months of her contract still to run. Court action against the board seeking payment on back salary is pending. Mr. Elmore assumes office on April 15.

School Health Facilities Study Makes Recommendations

DENVER. — Proper location of the health service unit in public schools is important so that a wide variety of activities may be carried on conveniently and efficiently. A survey made by a study committee of the American School Health Association and reported in the *Journal of School Health* indicates that facilities for health services preferably should be located on the first floor of the building near the administrative offices.

This unit houses the school health

service program, whose chief function is to determine the health status of pupils by means of school health examinations, dental inspections and prophylaxis, and vision and hearing tests.

Leland M. Corliss, director of health services for schools here, stated in a resume of the report that the health service unit may be used for conferences about the child's health problems, involving the parent, teacher, doctor and

nurse. The unit may be the center for emergency care of injuries and illness and should have space set aside for isolation of a child when necessary, he said.

Records, equipment and supplies should be housed in this unit, according to the report.

The survey covered 6343 elementary buildings, 816 junior high, and 699 senior high school buildings in 112 representative cities of the nation.

A.A.C.T.E. Convention Examines Policies

(Continued From Page 100)

He said that a recent study by the N.E.A. shows that 45 per cent of the nation's teachers want "someone" to take care of the difficult student.

"Today's teacher must face up to the difficult question: 'Why am I going into this business?'" Dr. Kvaraceus said. "The only acceptable answer is 'I want to work, live and be among young people, even when they are dirty, disturbing and delinquent,'" he added.

Profession Responsible

At a morning session on the final day of the convention, Margaret Lindsey, director of the New Horizons Project of the National Commission on Teacher Education and Professional Standards,

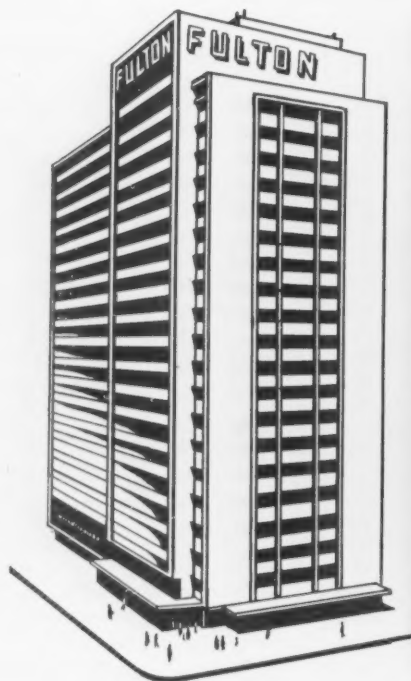
N.E.A., said that a mature profession must be responsible for the preparation and performance of its members — in other words, must have professional self-discipline. The meaning and purpose of the license is to ensure the public of competence in the holder of the license, she declared.

To Furnish Guidelines

The project is to furnish guidelines for the advancement of professional standards; identification, selective admission and retention in teacher education; pre-service and inservice teacher education; accreditation of teacher education programs, and certification and professional performance of school personnel.

The five areas of the project presented

AT ATLANTA'S FULTON BANK...



Model PS-20BP battery powered Clarke-A-matic cleaning floor in main lobby of Fulton National Bank, Atlanta, Ga.

by Dr. Lindsey were put to the convention participants for round table discussions. Each group was asked to examine the tentative policy statements prepared by the national committee and to give suggestions and criticisms.

Must Know Issues

W. K. Beggs, dean of Teachers College, University of Nebraska, spoke at the final general session. "Our first responsibility to the American public is to make sure that educational policy is formulated around the real issues and not self-styled straw men or bogus inquiries," he said.

Dr. Beggs suggested four basic questions that must be answered: What are the marks of an educated person by atomic space age standards, in a democratically organized culture? What do we mean by a gifted person? Can we achieve a system of communication between the highly talented intellect and the mind of average caliber or below so that each may understand the other, and more importantly so that each may retain its individuality and self-respect? Can we direct the genius of automation into the teaching and learning process?

Rackley President-Elect

J. Ralph Rackley, dean of the college of education, Pennsylvania State University, was named president-elect of the association. He will assume the presiden-

HENRY H. HILL (left), new A.A.-C.T.E. president and president of George Peabody College for Teachers, receives gavel and block from former A.A.C.T.E. President Wendell W. Wright, professor of education, Indiana University.



cy next year, taking over from Henry H. Hill, president of George Peabody College for Teachers, who began his term as A.A.C.T.E. head at the close of this year's meeting.

Wendell W. Wright, professor of edu-

cation at Indiana University and current president presided.

Forty-eight new institutional members were accepted during the convention, bringing the association's membership to an all-time high of 535.

ClarkeAmatic DOES A 16 HOUR JOB IN 45 MINUTES



Before placing the Clarke-A-matic self-propelled floor maintainer on the job, four men worked four hours to clean the 7214 sq. ft. of terrazzo floors in Fulton National Bank's main lobby. The floor was cleaned only once a week—a total of 16 hours labor time.

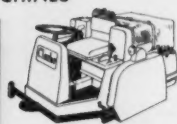
Today, the floor is cleaned in 45 minutes by one man with a Clarke-A-matic, reducing labor time 15 hours and 15 minutes each time the floor is cleaned, which, according to Fulton Bank's calculations, is a labor saving of 95 percent.

In addition, a better housekeeping job is accomplished and customers are provided with a safer, more sanitary floor. The floor is now cleaned *three times a week*. These three cleanings, requiring 45 minutes each, total only 2¼ hours—saving 13¾ hours each week.

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(Continued From Page 136)

(Pa.) Senior High School, told the representative of this magazine about a proposed undertaking, still in the making: a comprehensive study of the principalship.

President Nancarrow hopes that with financial assistance from a foundation the study can be undertaken for the purpose of clearing up queries such as these: What are the duties and responsibilities of the high school principal? What should be his self-concept? What is, and should be, the "image" of him in the minds of his colleagues, the superintendent, school board members, and the public? The organization proposes to find out if the principal can truly be an educational

leader, or whether he is destined to be a business manager, or still something else.

The findings will help determine the type of person best suited for the high school principalship, the type of training that will fit him for his job, where he can obtain this training, and the academic requirements for employment.

Once the principal is on the job, how much and what kind of staff and secretarial help should he have? How much and what should he delegate? How much time should he set aside to "think," plan, take periodic inventory of his organization, and even "dream"? What part of his day should he be expected to devote to routine duties?

PUSH BUTTON *Speed Selection* from to in seconds or to *any* intermediate speed, *instantly*

Just push a button and watch the large tachometer dial on the headstock!

It's that easy!

The work is done by a motor driven speed changer. It accelerates or slows the lathe to any desired speed in seconds. With a 10:1 ratio, this new variable drive makes it easy to select from a wide range of speeds—200 to 2000 rpm in direct drive and 40 to 300 rpm in back gear.

Maximum stability and smooth

power transmission are assured because the drive unit is oversized. All pulleys and shafts are fully supported (eight bearings). Double V-belts throughout the drive eliminate slippage and deliver full power to the spindle. Because of this rigidity and extra pulling power, this lathe will take heavy cuts at all speeds and precision finish cuts at high speeds.

It is a precision lathe, moderate in price, with the versatility for toolroom, production or second operation jobs.

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While such a study is expected to go far in setting standards for the profession, President Nancarrow does not anticipate that the N.A.S.S.P. will prescribe academic standards as a condition of membership (as the A.A.S.A. will, beginning in 1964) "in the immediate future."

Scholarships. Presently the association is administering annually about \$44,000 of scholarship funds. The new president said he would like to see this amount increased four or five times, since it could be distributed without the present administration costs rising appreciably. The funds are being supplied by about a dozen industrial concerns.

Student Tours. Every three years the association, with the aid of businesses, has financed European trips of some 80 officers of student councils, most recently last summer. The project will be studied to determine whether a large enough number of students is served by the present plan, Dr. Nancarrow indicated.

Staff Utilization. The N.A.S.S.P. Commission on the Experimental Study of the Utilization of the Staff in the Secondary School has received funds needed to conclude the study by September. President Nancarrow indicated the commission thereafter will be discharged. Any follow-up work, it was learned, is likely to be done from the association office. About \$750,000 from the Ford Foundation has been expended on this program.

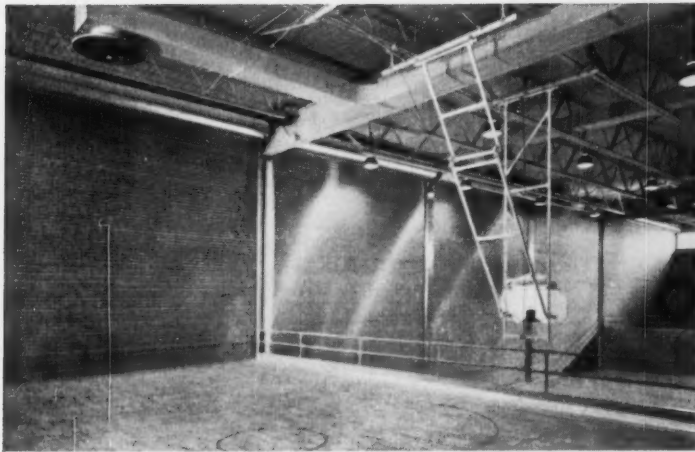
Referring to the theme of this year's convention — "Quality Education, Today's Priority" — President Nancarrow declared that in stressing *quality* education for the academically superior it is important that schools "retain the moral values that go hand in hand with *equality* of education."

At the annual business meeting G. Mason Hall, principal of the Edmonds (Wash.) Senior High School, was elected a member of the executive committee, succeeding Eugene S. Thomas, Central High School, Kalamazoo, Mich., who became second vice president. James E. Nancarrow, first vice president, moved up to the presidency, and James D. Logsdon, superintendent, Thornton Township High Schools and Junior College, Harvey, Ill., was elevated to the office of the first vice presidency.

Holdover members of the executive committee are: Calloway Taulbee, director of secondary education, New Mexico State Department of Education; John M. Sexton, Northeast High School, St. Petersburg, Fla., and Samuel M. Graves, Gamaliel Bradford High School, Wellesley, Mass.

Next year's convention will be held in Detroit, February 11 through 16. Other sites are: 1962, St. Louis; 1963, Pittsburgh; 1964 (undecided), and 1965, Miami Beach.

modern school design demands

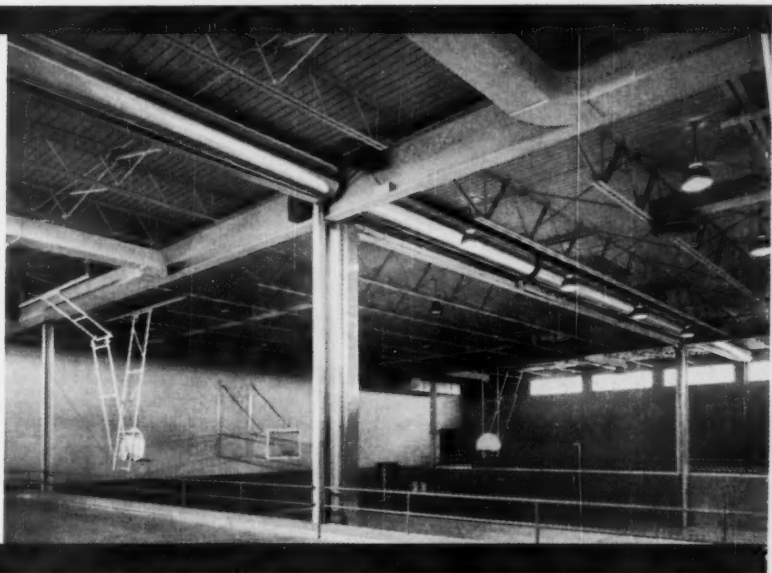


MAHON ROLL-UP WALLS...

Interior view of gymnasium of the recently built Port Huron (Michigan) High School with divider of five Mahon Rolling Walls. Architect: Louis C. Kingscott and Associate. Contractors: Collins and Catlin, Inc.

... help you solve space, safety, supervision and budget problems—functionally and attractively

Inherent adaptability has always been a feature of Mahon Rolling Doors—now they prove ideal as 'disappearing walls' in schools where space utilization is of prime importance. They are used as rolling removable dividing walls (of aluminum) for any large indoor area, any size opening. When lowered, they serve as an interior wall; raised, they clear all floor space for unobstructed use and vision. Gymnasiums, auditoriums, cafeterias, and the like can now be designed for multiple-purposes. A flick of the switch and these power-operated Roll-Up Walls (with manually movable mullions) give your schools the variable space they need to match constantly changing requirements.



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QUALITY MADE ROLLING STEEL DOORS, ROLL-UP WALLS, SHUTTERS
AND GRILLES TO MEET EVERY DESIGN REQUIREMENT, EVERY APPLICATION

A flick of a switch and the power-operated walls are rolled up, the mullions moved and the gymnasium floor is clear.

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About People

Changes in Superintendencies

NORTHEAST

James H. Johnson, Newton, N.J., to Caldwell-West School District, Caldwell, N.J., effective May 1.

Cornelius J. Knealing, acting superintendent, Northampton County, Easton, Pa., to superintendent there, succeeding Robert N. Taylor, who retired.

George E. Taylor, supervising principal, South Middleton Township, Boiling Springs, Pa., to regional superintendent,

Council Rocks Schools, Newtown, Pa., effective May 1.

MIDWEST

J. Harry Wanamaker, director of curriculum and instruction, Youngstown, Ohio, to assistant superintendent there.

Alvin W. Krohn, Muscoda, Wis., to Nekoosa, Wis. He succeeds LeRoy Jensen, who resigned.

Ralph A. Austermiller, director of curriculum and instruction, Waterloo, Iowa, to superintendent, Burlington, Iowa, and president, Burlington College.

Harlin Staires, high school principal, Grandview, Mo., to superintendent there. He succeeds the late Jess L. Taylor.

Gordon Watkins, Trenton, Neb., to Campbell, Neb., succeeding Eldon Davis, who has accepted a position with the state department of education.

Max Shaw, high school principal, Wabash, Ind., to superintendent there.

Kenneth S. Hill, superintendent, Concordia, Kan., to superintendent of schools and Pratt Junior College, Pratt, Kan., effective July 1.

Milton W. Bierbaum, West Walnut Manor School District, Jennings, Mo., to Maplewood-Richmond Heights School District, Maplewood, Mo., succeeding Edward R. Adams, who resigns, effective July 1.

SOUTHEAST

Russell R. Below, high school principal, Henderson, Ky., to superintendent, Henderson County, Henderson, Ky., effective July 1.

Carson L. Robinette, high school principal, Jonesville, Va., to director of instruction, Lee County, Jonesville, succeeding John A. Richmond, who becomes division superintendent, Lee County. He succeeds S. J. Shelburne, who resigns effective June 30.

James E. Goolsby, assistant superintendent, Columbus, Miss., will become superintendent there, effective July 1.

WEST

Jay L. Bessey, elementary principal and superintendent, Strathmore, Calif., to elementary school district superintendent, Farmersville, Calif. He will succeed George L. Snowden, who retires, effective June 30.

Gerald Litel, assistant superintendent in charge of instruction, Unified School District, Chino, Calif., to acting superintendent there, succeeding Levi Dickey, superintendent, who resigned.

Other Appointments . . .

John M. Hickey, superintendent, Erie, Pa., has accepted the position of executive assistant to the state superintendent of public instruction, Harrisburg, Pa.

Hal N. Buchanan, superintendent, Pryor, Okla., has accepted a position on the placement staff of Oklahoma State University, Stillwater, effective June 30.

LeRoy Peterson, special education director, Cedar Rapids, Iowa, has been appointed director, department of special education, Niles, Ill., effective July 1.

Frederick J. Moffitt, has been appointed special assistant to the U.S. Commissioner of Education. He will work directly with Commissioner Derthick on special projects and will assist with the programing and policy of the office of education. Dr. Moffitt is the author of Chalk Dust in The NATION'S SCHOOLS. Following his retirement from the New York State Department of Public Instruc-

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tion, he served as head of professional publications for a publishing company.

Frank O. Washam has retired after 27 years as director of lunchrooms, Chicago. Edward F. Gaidzik, assistant director, has become acting director of lunchrooms there.

Retirements . . .

Charles J. Hooker, supervising principal, Goshen Central District School, Goshen, N.Y.

Arthur W. Lathrop, superintendent, Barry County, Hastings, Mich., after 17 years there, effective June 1.

Msgr. Patrick J. Dignan, superintendent, Los Angeles archdiocese, after 21 years there.

Norman E. Borgerson, a former deputy state superintendent of public instruction in Michigan. As a member of the state department of public instruction since 1936, he has served under seven different governors. He was consultant in the department of driver education and civil defense at the time of his retirement.

Deaths . . .

Clarence M. Dannelly, 70, retired superintendent, Montgomery, Ala. Dr. Dannelly had served a term as vice president of the N.E.A. and was president of Kentucky Wesleyan College from 1928 to 1932.

Nickolaus L. Engelhardt Sr., 77, senior partner in Engelhardt, Engelhardt, Leggett and Cornell, educational consultants, New York. Dr. Engelhardt served as

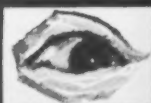


professor of education and director of the Division of Field Studies of Teachers College, Columbia University, from 1917 to 1942. He was associate superintendent in charge of housing and business administration for New York City for five years, planning the postwar building program of 120 schools.

As an educational consultant, Dr. Engelhardt advised in the development of school systems and planning of school buildings in hundreds of cities, towns and states throughout North America.

He was president of the American Association of School Administrators in 1944-45.

Raymond V. Long, 72, director, Virginia Department of Conservation and Economic Development, Richmond. Previously, he had been director of Virginia's State Planning Board. He was a member of The NATION's SCHOOLS editorial advisory board from 1936 to 1954.



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Publications of recent copyright and of interest to school administrators

ADULT EDUCATION

Education for Public Responsibility. A statement to the American people by the directors of the Fund for Adult Education, 200 Bloomingdale Rd., White Plains, N.Y. Pp. 17.

AUDIO-VISUAL

Cooperative Approach to Audio-Visual Programs. Prepared by Henry R. McCarty, Texas Technological College, and Horace C. Hartsell, Michigan State University. A project of the committee on

county cooperative programs, department of audio-visual instruction and department of rural education, N.E.A., 1201 16th St., N.W., Washington 6, D.C. Pp. 80. \$1.50.

COMPARATIVE EDUCATION

Soviet Commitment to Education. Report of the first official U.S. education mission to the U.S.S.R. with an analysis of recent educational reforms. U.S.O.E. Bulletin 1959, No. 16. U.S. Govt. Prtg. Off., Washington 25, D.C. Pp. 135. 70 cents.

FROM SCHOOL DISTRICTS

What Should Our Schools Do For Our Children? Prepared by John Harold, superintendent, Cedar Falls public schools. Cedar Falls Community School District, Cedar Falls, Iowa. Pp. 38. \$1.

Improving Instruction: A Look at Our Schools. 29th annual report, 1959. Sewanhaka Central High School District No. 2, Sewanhaka, N.Y. Pp. 18.

Annual Report, 1958-59. Lamar Public Schools, Lamar, Colo. Pp. 50.

Denver Looks at Its Schools. Highlights from the 1959 opinion survey of the Denver public schools. Research Services, Inc., Denver. Pp. 24.

METHODS AND MATERIALS

Creative Power: The Education of Youth in the Creative Arts. 2d rev. ed. By Hughes Mearns. Dover Publications, Inc., 180 Varick St., New York 14. Pp. 272. \$1.50.

Elementary Teachers Guide to Free Curriculum Materials, 1959. 16th annual ed. Edited by Patricia H. Suttles. Educators Progress Service, Randolph, Wis. Pp. 313. \$6.50.

SAFETY EDUCATION

Ring the Alarm! Some suggestions for principals and other school officials on the management of people to meet the emergency of school fires. Educational Facilities Laboratories, Inc., 477 Madison Ave., New York 22. Pp. 19.

SCHOOLHOUSE PLANNING

Here They Learn. First annual report of the Educational Facilities Laboratories, Inc., 477 Madison Ave., New York 22. Pp. 32.

Post-Secondary School Plant Planning. First edition of a guide to planning practices for facilities for educational programs beyond the high school. National Council on Schoolhouse Construction, 10th Fl. and Virginia St., Gary, Ind. Pp. 163.

Operation School Burning. Official report on a series of school fire tests conducted April 16, 1959, to June 30, 1959,

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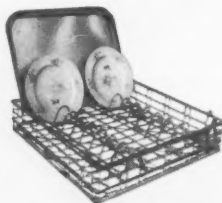
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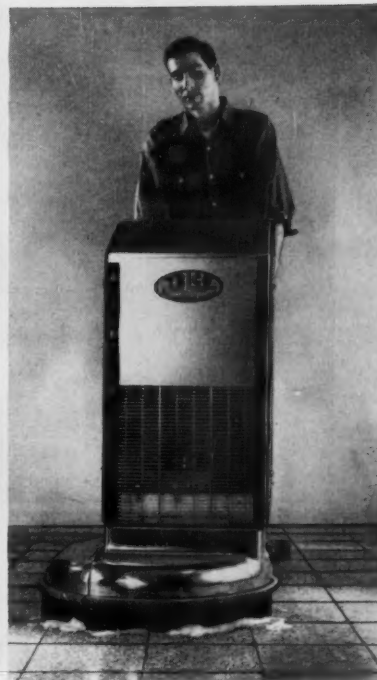
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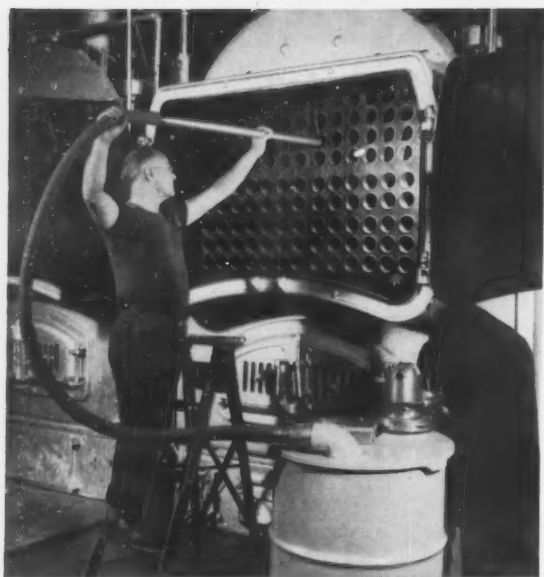
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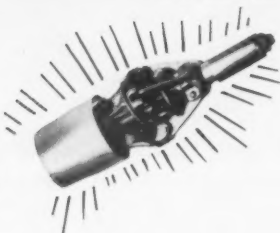
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by the Los Angeles fire department. National Fire Protection Association, 60 Battery March St., Boston 10. Pp. 269. \$4.75.

SPECIAL EDUCATION

How Retarded Children Can Be Helped. By Evelyn Hart. No. 288. Public Affairs Pamphlets, 22 E. 38th St., New York 18. Pp. 27. 25 cents.

TEACHER EDUCATION

American Association of Colleges for Teacher Education, 1959. 12th yearbook. Teacher education for the future. The association, N.E.A., 1201 16th St., N.W., Washington 6, D.C. Pp. 213. \$2.50.

TESTING

Evaluating the School's Testing Program. By George E. Hill, director, guidance training laboratory, and coordinator, division of pupil services, Center for Educational Service, College of Education, Ohio University, Athens, Ohio. Pp. 27.

Cooperative Tests, Programs, Services for Elementary Schools, High Schools, Colleges. Cooperative test division, Educational Testing Service, 20 Nassau St., Princeton, N.J. Pp. 33.

1959 Achievement Testing Program in Independent Schools and Supplementary Studies. Educational records bulletin No. 74. Educational Records Bureau, 21 Audubon Ave., New York 32. Pp. 104.

UNESCO

Secondary Technical and Vocational Education in Underdeveloped Countries. Educational studies and documents No. 33. Publications Center, 801 3d Ave., New York 22. Pp. 34. 75 cents.

Education in Italy. By Enzo Petrini. Education abstracts, June 1959, Vol. XI, No. 6. Publications Center, 801 3d Ave., New York 22. Pp. 19. 25 cents.

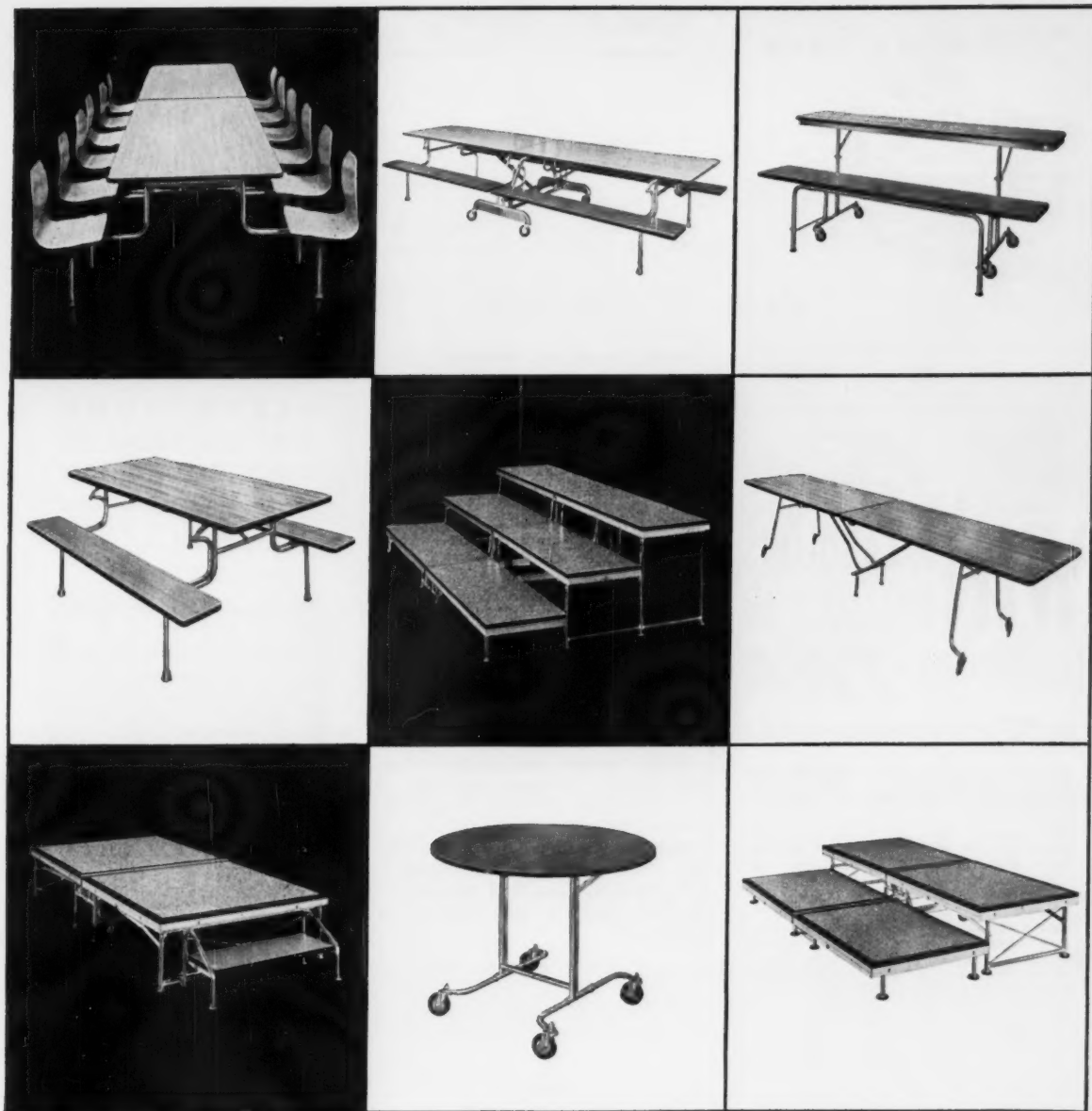
YEARBOOKS

New Viewpoints in Geography. 29th yearbook, National Council for the Social Studies. Edited by Preston E. James, professor of geography, Syracuse University. N. E. A., 1201 16th St., N.W., Washington 6, D. C. Pp. 257. Paperbound, \$4; Clothbound, \$5.

OF GENERAL INTEREST

Crucial Issues in Education. Anthology, revised ed. Edited by Henry Ehlers, professor of philosophy, University of Minnesota, Duluth branch, and Gordon C. Lee, professor of education, Teachers College, Columbia University. Henry Holt and Co., 383 Madison Ave., New York 17. Pp. 342. \$2.75.

A Conceptual Design for the Teaching Profession. A statement by the Oregon Education Policies Commission. Oregon Education Association, 1530 S.W. Taylor St., Portland 5. Pp. 40.



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- 7-9. Southeastern Association of School Business Officials, 9th annual meeting, Jackson, Miss.
- 17-22. Association for Childhood Education International, annual study conference, Cleveland.
- 19-22. American Industrial Arts Association, N.E.A., annual convention, Toronto, Canada.
- 19-23. Council for Exceptional Children, annual convention, Los Angeles.
- 23-28. American Association for Health, Physical Education, and Recreation, Miami Beach.
- 20-23. National Council of Teachers of Mathematics, annual meeting, Buffalo.
- 24-27. National School Boards Association, annual meeting, Chicago.

JUNE

- 12. United Business Education Association, annual meeting, Los Angeles.
- 19-22. Campus Safety Association, National Safety Council, Seventh National Conference on Campus Safety, Ithaca, N.Y.
- 19-23. National Association of Student Councils, National Association of Secondary School Principals, annual conference, Janesville, Wis.
- 26-July 1. National Education Association, annual meeting, Los Angeles.
- 29. National Council of Teachers of Mathematics, N.E.A., joint meeting, Los Angeles.

JULY

- 5-9. National School Public Relations Association, annual seminar, San Francisco.

AUGUST

- 21-27. National Conference of Professors of Educational Administration, Macomb, Ill.

OCTOBER

- 2-6. American School Food Service Association, annual convention, Washington, D.C.
- 7-12. Department of Rural Education, N.E.A., annual conference, Louisville, Ky.
- 9-13. Association of School Business Officials of the United States and Canada, 46th annual convention, St. Louis.
- 14-16. National Association of Public School Adult Educators, annual conference, Denver.

NOVEMBER

- 23-26. National Council for the Social Studies, Boston.



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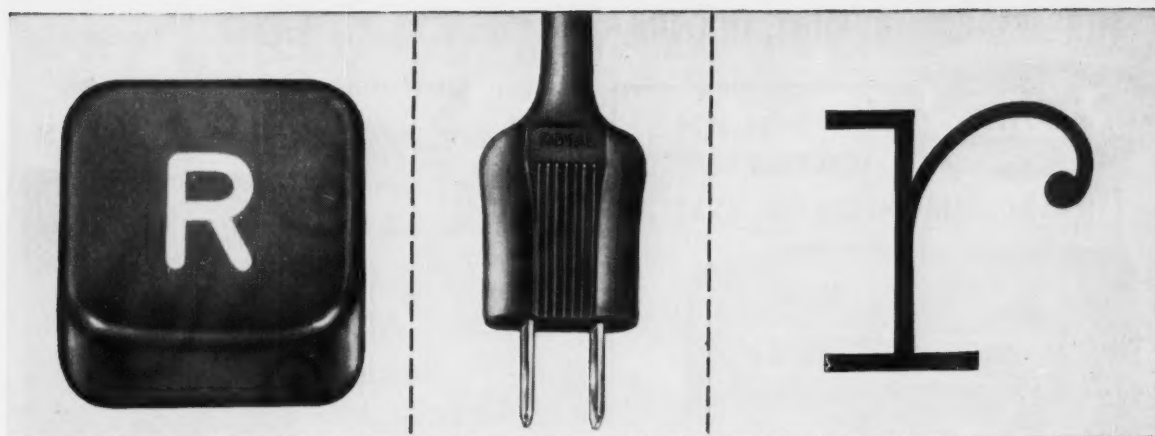
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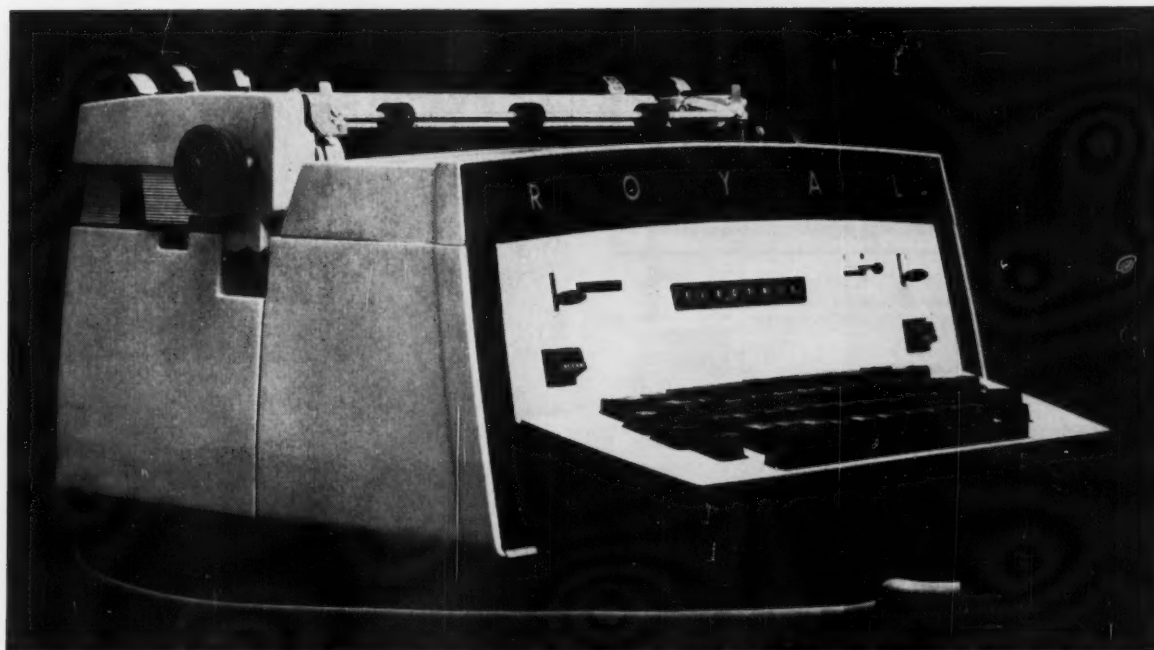
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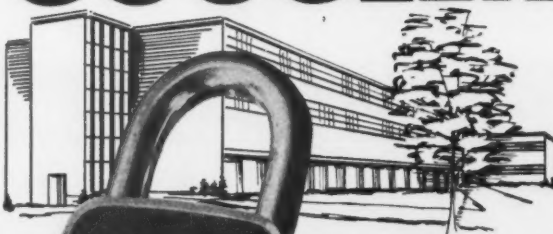


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With a Zepomist-treated mop, sweeping becomes a once-over operation that produces dustless, spotless, beautiful floors. This product of Zep pioneering research outmodes the broom, oil treatments, untreated dust mops . . . in fact all old-fashioned sweeping methods. It picks dust from the surface with magnetic ease, leaving behind a gentle cedar fragrance and a brightly-clean floor.

New Zepomist's bacteriostatic action keeps mops and dust cloths free of germs and safe to store or handle. Washing them is easy too, because of a specially formulated emulsifier in Zepomist that aids the cleansing process.



ZEPOMIST has been classified by Underwriter's Laboratories as to fire hazard. It is sold nationally by Zep Maintenance Experts. If you would like a FREE SAMPLE to prove the effectiveness of this modern housekeeping miracle, write your nearest Zep office today!

ZEP MANUFACTURING CORPORATION

ZEP MANUFACTURING CORPORATION
P. O. BOX 2015, ATLANTA 1, GA.

We would like to try ZEPOMIST. Please send us a FREE sample.

NAME _____

COMPANY _____

ADDRESS _____

CITY _____ STATE _____

**FIRST in
Maintenance and Sanitation**

ATLANTA
1310 Seaboard Industrial Blvd.

KANSAS CITY
111 E. 10th Avenue

CLEVELAND
13112 Broadway

DALLAS
1103 Slocum Street

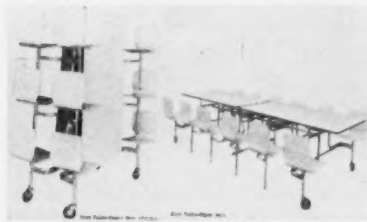


Edited by BESSIE COVERT

TO HELP YOU get more information quickly on the new products described in this section, we have provided the convenient Readers Service Form on page 217. Check the numbers on the card which correspond with the numbers at the close of each descriptive item in which you are interested. The NATION'S SCHOOLS will send your requests to the manufacturers. If you wish other product information, just write us and we shall make every effort to supply it.

Table With Chairs in Portable, Folding Unit

Pupils can walk without obstruction to the comfortable chair seats on the unique Model TC-65 Sico unit. Combining comfortable attached chairs with a folding, portable table unit, the new TC-65 provides comfort and convenience while re-



taining the advantages of fixed dimension seating. The chairs swivel 180 degrees to permit pupils to face away from the table when desired, yet return automatically to position when vacated. The contoured plywood or molded plastic chairs are anchored to the table by structural steel pedestals which are set to one side for full leg freedom, yet fold out of the way with the table. Produced in ten-foot lengths, the unit will accommodate 12 persons and aisle space is maintained since the chairs (or stools if preferred) cannot be pushed out of line. Four-inch rubber casters ensure easy mobility of the TC-65 when folded for storage. Sico Mfg. Co., Inc., 5215 Eden Ave. S., Minneapolis 24, Minn.

For more details circle #446 on mailing card.

Electronic Learning Center Has Wide Range of Use



In addition to providing a completely functional, integrated electronic system for foreign language instruction, the Electronic Learning Center introduced by American Seating has many other uses in the classroom. It may be used in classes for speech therapy, remedial reading, public speaking

and voice training, and for individual tutoring. It is also effective for use in classrooms where more than one grade is taught, or where pupils are encouraged to study at the intelligence level best suited to their abilities, thus permitting the gifted to cover a wider range of material.

The top quality, integrally engineered system, with the furniture and all other vital components designed and built specifically for the purpose, includes the teacher console-desk of all-steel construction equipped with four tape decks to cover varying subjects or grades of material, each with four channels; amplifiers transistorized for small size and ease of servicing; printed electronic circuits; teacher-control through a switchboard arrangement at the console-desk; swivel chairs for improved student comfort and posture control; special acoustical material for soundproofing the student stations which are built in connected units of two and four for grouping in combinations to suit classroom requirements, and other features for fast, effective teaching technics with almost limitless flexibility and variety. With the Center each member of a language or other class may have individual instruction according to his need, using tape-recorded lessons transmitted through earphones and monitored by the teacher. American Seating Co., Grand Rapids 2, Mich.

For more details circle #447 on mailing card.

Round Top Waste Receptacles May Now Carry Messages

Schools and colleges may now stencil special instructions or warnings on the United Round Top Waste Receptacles. A recently developed stencil rack permits the printing of notices or other messages on the curved surfaces of the receptacles. United Metal Cabinet Corp., 8 E. 36th St., New York 16.

For more details circle #448 on mailing card.

Compact Unit Ventilator Line Saves Floor Space

Minimum floor space is required for the all-new compact line of heating, ventilating and air conditioning unit ventilators introduced by Trane. Occupying 21 per cent less floor space than previous Trane heating unit ventilators, and 29 per cent less than air conditioning units, considerably more space is available in the classroom for aisles or seating. Designed to heat and ventilate, and to provide complete air conditioning as desired, the unit ventilators are only 11½ inches deep. They are constructed of 14 gauge steel with matching

shelving of 16 gauge. Modern in design, the units have top surfaces of patterned hard-top material.

Trane Unit Ventilators can be installed to provide complete air conditioning at the beginning, or they can be so equipped that future cooling requires only the addition of a chilled water source. Units may be used in either steam, hot water or electrical heat-



ing systems and are available in a broad range of unit capacities and a variety of controls for selection of the most economical unit for any type of school in any climate. The Trane "Kinetic Barrier" principle to combat downdraft from large window-walls is built into the new line. The Trane Company, LaCrosse, Wis.

For more details circle #449 on mailing card.

Opaque 1000 Delineascope Offered in Two Models

Two basic models are offered in the all new AO Spencer Opaque 1000 Delineascope. Adjustments and controls are on the right hand side of the instrument for easy operation. Convenience is also provided with the new optical pointer and locking platen. The superior quality coated projection objective and all-glass reflecting system combine with a 1000-watt bulb to produce maximum light on the screen for a sharp projected image. The instrument



remains cool and safe to touch through the efficient cooling system which also protects copy from the heat. The overall weight is kept to a minimum for easy portability. American Optical Co., Instrument Div., Buffalo 15, N.Y.

For more details circle #450 on mailing card.

(Continued on page 182)



ACME CHEMICAL?

*... They help us
get the work done*



Any schoolman knows you can't waste time on slow methods or so-so materials if you're going to get the day's cleaning work done.

What with evening activities going on nearly every school night, we have to wind up the regular cleaning work on time. That's where Acme Chemical is such a big help to us.

Take the biggest job of all — floors. Acme Chemical's Misto® Method is still the quickest, cleanest, lowest-cost way to sweep the floors every day in our classrooms, hallways and gyms. And it helps us control bacteria-carrying dust all day while the children are here. We use other Acme Chemical products, but Misto really helps us most in getting the work done.



Misto is one of 80 fine time-saver products made by the Acme Chemical Company. Your Acme man will gladly demonstrate how it can speed the day's cleaning for you.



*Maintenance materials for the School Building...
serviced to your satisfaction*

Wall-Hung Teaching Units Are Flexible and Interchangeable

The new Moduwall developed by Brunswick is described as a "working wall for learning." It consists of a series of flexible and interchangeable teaching aids which are easily hooked into place to meet the requirements of the particular class. Units include chalkboard, tackboard, pegboard, flannelboard, easel board, wall-hung cabinets and open shelves, and utility rails. Each is based on a four-foot wide scale for complete interchangeability, permitting



functional and flexible utilization of classroom wall space. Only the wall-mounted standards into which the various units are hooked are stationary. The component parts can be hung at higher or lower intervals for comfortable and correct accommodation to the differing eye levels of various grades. With the new Moduwall, classrooms can be used for varying ages and classes, while permitting teachers to use creativity in presentation of subjects. **The Brunswick-Balke-Collender Co., 623 S. Wabash Ave., Chicago 5.**

For more details circle #451 on mailing card.

1960 Superior Bus Has Scene-O-Ramic Windshield

The Scene-O-Ramic windshield, with 136 degrees of unobstructed forward vision, adds to safety in the operation of the 1960 Superior School Bus. The new model is also available with the wide conventional windshield and with a choice of five standard chassis and seating capacities of from 24 to 66 passengers. Safety features which are stressed in the 1960 Superior bus include "kick-out" windows or hatches for quick exit in the event of accident, with



operating instructions stenciled above these exits. A Folding Evacuation Ladder, easily handled by a small child, is placed under the seat cushions for use in case of turn-over. Other safety features include a large rear emergency door with rustproof hinge pins, all windows swinging out, and cartridge-operated front door safety device. A completely new and improved heating and ventilating system is also included, together with other improved construction features. **Superior Coach Corporation, Lima, Ohio.**

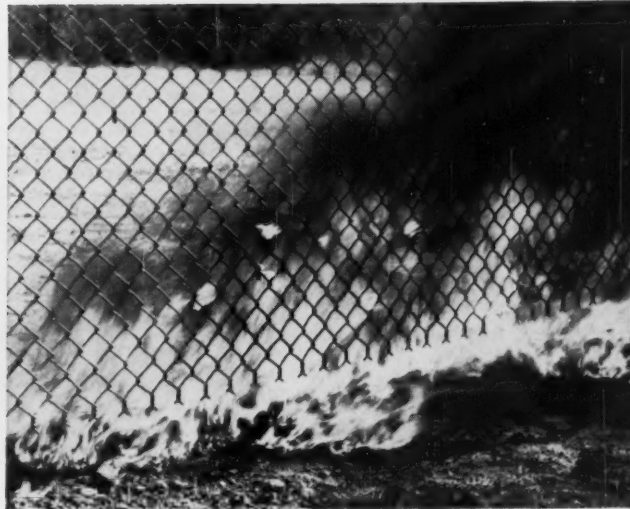
For more details circle #452 on mailing card.

(Continued on page 184)

Tests Prove Cyclone Steel Fence Quality



Impact Test. A 4000-pound car, traveling at 35 miles per hour, was driven directly into a panel of Cyclone Chain Link Fence Fabric. The car was stopped. The fence did not break or fail—proof that Cyclone Steel Fence has the strength to withstand severe impact.



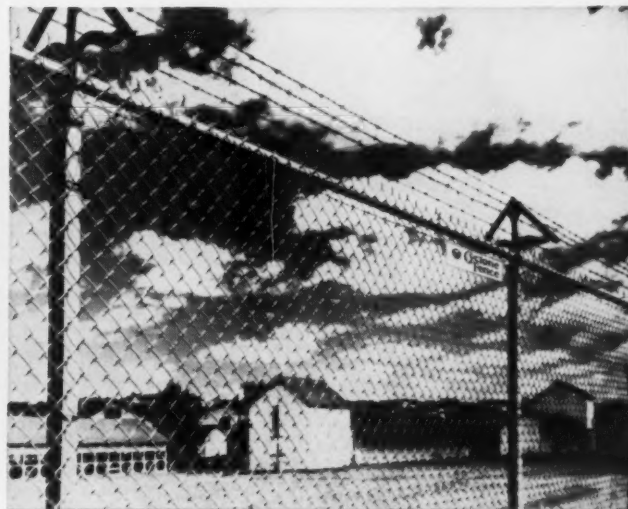
Fire Test. This raging fire was deliberately set to test the heat resistance of Cyclone Steel Fence . . . and that rugged steel fabric did not melt or fail. Should a grass or trash fire break out too close to a Cyclone Fence, there will be no damage.



Corrosion Test. More than 10 years ago this panel of Cyclone Steel Fence was installed 45 feet from the ocean. Even in this extremely corrosive atmosphere it is still strong and serviceable. Cyclone Fence owes its unusual corrosion resistance to its heavy coating of zinc.

For additional information on USS Cyclone Fence, write to Cyclone Fence, American Steel & Wire, Dept. M-40, 614 Superior Avenue, N.W., Cleveland 13, Ohio.

USS and Cyclone are registered trademarks



Time Test. The fence shown here is a 25-year-old Cyclone veteran . . . still giving good service. Once Cyclone Fence is properly installed, it requires almost no maintenance. It continues to give good service, year after year.



**Cyclone Fence Dept.
American Steel & Wire
Division of
United States Steel**

Waukegan, Illinois, Sales Offices Coast to Coast
United States Steel Export Company, Distributors Abroad



Cork-Tex Wall Covering Has "Damage-Proof" Finish

The practically damage-proof finish on the new Cork-Tex wall covering material

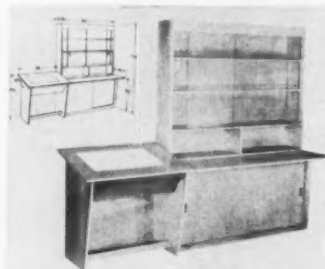
makes it especially effective in classroom use. Eighteen-gauge vinyl is permanently bonded to a quarter-inch thick cork sheet and is supplied in standard rolls of four by 72 feet, or in pre-framed boards ranging up to 12 feet in length for tackboard installations. The vinyl covering "heals" itself after puncture by thumbtacks, nails, picture hooks or even a knife stab. It is therefore particularly effective for tackboard or bulletin board use in classrooms or corridors. Available in eight different colors in a linen finish, the washable vinyl covering may be had on special order in more than 100 varied shades and textures. Easily installed and highly durable, Cork-Tex is low in cost and has proved effective for classroom use through actual school in-

stallations on a long-range test basis. **Bond Crown & Cork Div., Continental Can Co., Inc., 1819 N. Major Ave., Chicago 39.**

For more details circle #453 on mailing card.

Model TPC-60 Planning Center for Vocational Equipment

Facilities for vocational equipment are provided in the Model TPC-60 Planning Center developed by Tolerton. The upper case has two fully adjustable and removable 12-inch deep shelves behind sliding



glass doors. The lower cabinet, closed with sliding wood doors, has one adjustable and removable 30-inch deep shelf. The separate tracing table is fitted with two fluorescent lamps and a heavy plate glass working surface. Without the table, the cabinet is 60 inches wide with a 30-inch high working area. **The Tolerton Co., Alliance, Ohio.**

For more details circle #454 on mailing card.

Two Chicken Soup Mixes Packaged for Institutions

A variety of chicken dishes and chicken flavored soups, sauces and gravies can be made with the two new products introduced by Continental. **WB Chicken Soup Mix** with the natural flavor derived from pure rendered chicken fat, and **Real Chicken Soup Mix** with more than 35 per cent roasted chicken meat, are both packed in wide mouth jars. **Continental Coffee Co., 2550 N. Clybourn, Chicago 14.**

For more details circle #455 on mailing card.

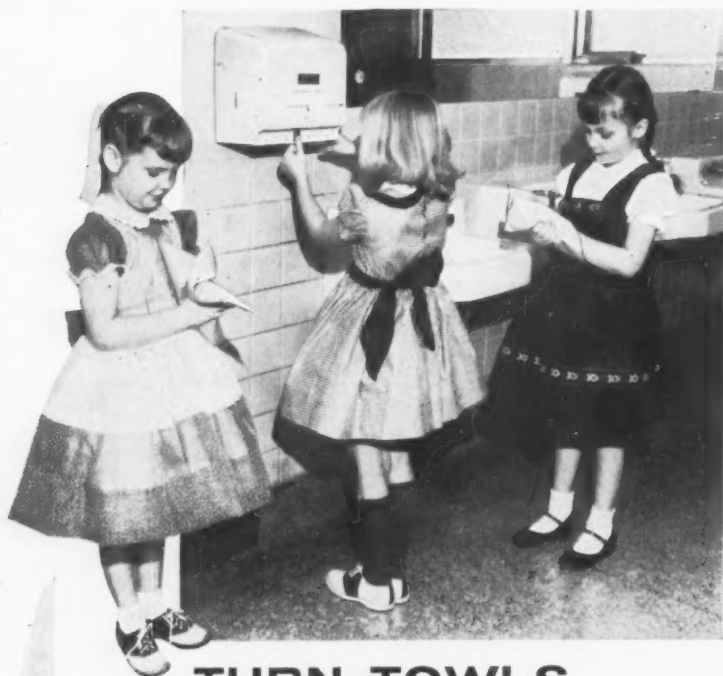
15-Inch Floor Machine Added to KL Dyna-Craft Line

All of the proven features of the KL Dyna-Craft line of floor machines is built into the new 15-inch model recently added. Listed by Underwriters Laboratories, the



midweight wider-brush machine has a two position, pivotal-rigid combination handle, double lever momentary safety switch, convenient carry handle and silent and positive gear drive, among other features. **General Floorcraft, Inc., 3630 Rombouts Ave., Bronx 66, N.Y.**

For more details circle #456 on mailing card.



TURN-TOWLS are giving the most for the school towel service dollar!

These little girls are using the finest quality towel a school can buy — and it's costing the public just 22¢ per pupil per school year.

It's Mosinee towel quality — plus controlled dispensing — that does it. Many large city school systems that buy low quality towels on a bid basis cannot serve pupils at less than 30¢ each per year.

Write for name
of nearest
distributor



Bus Safety Sound System Is Fully Transistorized

The Guardsman is a new bus safety sound system with fully transistorized components. Providing speakers both inside and outside the bus for controlling pupils, the outside speaker is weatherproofed and strong enough to penetrate traffic and weather noises to get immediate attention. Considerably more powerful than previous models, the Guardsman is compact, takes minimum space on the instrument panel, and may be mounted flush or on the surface. The newly developed circuit allows



the amplifier to operate on positively or negatively grounded electrical systems and the breakproof microphone is permanently secured to the amplifier to prevent loss. **Midwest Audio Corp., 3800 W. North Ave., Chicago 47.**

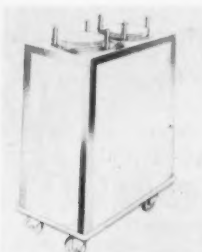
For more details circle #457 on mailing card.

Koch MU Refrigerators Convert to Freezers

The convertible Series MU Refrigerators introduced by Koch are designed to help solve the problems of allocating space for medium temperature and freezer refrigeration. A wide range of cabinets is available, constructed to standard Koch Freezer specifications, but installed initially with a medium temperature refrigeration "plug" unit. When additional freezer space is required, the "plug" can be lifted out and exchanged for a low temperature unit. MU cabinets, designed to fit into the other Koch Series M installations, are available in one, two, three or four-door sizes. **Koch Refrigerators, Inc., 401 Funston Rd., Kansas City 15, Kans.**

For more details circle #458 on mailing card.

Decor/Lowerator Dispensers Have Formica Side Panels



Side panels of Formica or other plastic laminates may now be built into the mobile AMF Lowerator self-leveling dispensers for automatic dispensing and storage of all types of dishware, glasses and trays. Side panels in the Decor/Lowerator models may be replaced with new colors or designs to

harmonize with redecorated food service areas. Supplementing the standard mobile line of Lowerator dispensers, the Decor/Lowerators are easy to keep clean and attractive in appearance. **Lowerator Div., American Machine & Foundry Co., 261 Madison Ave., New York 16.**

For more details circle #459 on mailing card.

"Victorscope" Attachment for Wide Screen Films

A new anamorphic lens which will convert any 16mm projector for showing CinemaScope wide screen motion pictures is available in the "Victorscope." The lens attachment may also be used as a supplementary camera lens for photographing



movies in CinemaScope. Brackets for mounting the lens to all Victor projectors are available, as are special adapters to fit most cameras. **Victor Animatograph Corp., Div. of Kalart, Plainville, Conn.**

For more details circle #460 on mailing card.

(Continued on page 156)

COMFORT AND DURABILITY

THIS IS IT! Here is an average man, an ordinary human being, enjoying comfort. If he were larger, or smaller, he would still be comfortable in a Durham folding chair. These well-built chairs are designed for the comfort of people! We would not presume to read this man's thoughts, but chances are ten to one were we to ask him what make of folding chairs he'd buy, he'd say: "This make!" It's a sure thing he'd be 100% sold when given the complete story of Durham construction and materials. They insure full value for every seating dollar.



No. 863



No. 875



No. 605R

Tubular or channel steel frames in many styles: All steel; padded, upholstered seats and backs; wood seats. Tablet armchair with wrap rack. Chair sizes for children under 10. Chair accessories include bookracks and kneelers.

Write for catalog. See why your best buy is Durham.



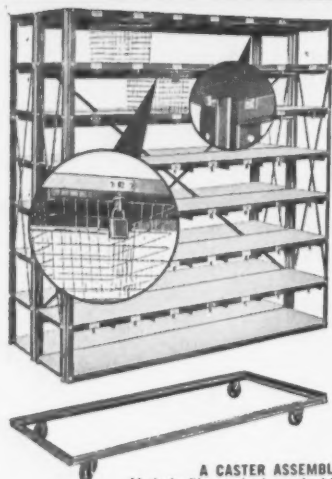
Durham
THE FINEST METAL FURNITURE



DURHAM MANUFACTURING CORPORATION • MUNCIE, INDIANA

Any Size GYMNASIUM BASKET RACKS

WITH RECESSED HASPS



A CASTER ASSEMBLY
Made to fit any single or double rack, may be added, or removed at any time.

Insist on Neubauer Basket Racks for these exclusive features:

1. Rigid twin-post corners make the whole rack stronger,
 2. Your choice of any size to fit odd baskets or limited space*,
 3. Easier assembly, hasps and dividers installed at the factory,
 4. Recessed hasps can't snag clothing or cause injury, (Hasps omitted if desired)
- plus a choice of four popular baked enamel finishes, plated hardware, sturdy bracing, and other details of quality.

STORAGE SHELVING

with patented
twin-post corners



AND

LIBRARY SHELVING

with beautifully finished end panels, can be furnished in any size to fit your room dimensions. Baked enamel colors are green, grey, tan and beige.

*No extra charge

You don't pay a premium for odd sizes when you buy Neubauer racks and shelving.

TWIN POST
Neubauer
MANUFACTURING CO.
517 LOWRY AVENUE N.E.
MINNEAPOLIS 18, MINN.

Sanacoustic HCS System Heats, Cools and Sound-Conditions

All areas of the classroom, even those adjacent to window walls, can be used in comfort in the coldest or the hottest weather with operation of the Sanacoustic HCS System for radiant heating, cooling and sound-conditioning. The radiant ceiling not only provides draft-free heating and cooling, but maximum acoustical efficiency, absorbing up to 90 per cent of the sound that strikes it. Made entirely of standard components which are easy to



install and economical to maintain, the HCS also leaves the total floor area free and unencumbered for flexibility in handling interior requirements.

Basic components of the HCS system include water-carrying coils for heating or cooling, a sound-absorbing insulating blanket, and perforated metal panels which form the finished ceiling and can be washed when necessary. To heat, circulating warm water inside the HCS tubing radiates to the steel panels, then downward to warm surfaces and occupants in draft-free comfort. In cooling, excess heat is radiated to the ceiling surface and carried away by cool water circulating in the same coils, with water temperature controlled to prevent condensation. The system is economical to install and effects fuel savings while providing comfort along window walls as well as in other parts of the classroom in any weather. Johns-Manville Corp., 22 E. 40th St., New York 16.

For more details circle #461 on mailing card.

Automatic Photocopier for One-Step Operation



The new Cormac "500" with Flo-Matic Control is a new copying device for one-step operation without solution handling. An exclusive separation mechanism enables the machine to expose, develop and separate original from copy to produce photo-accurate copies with minimum handling and materials. It copies all sizes of originals up to 14 inches wide, by any length, and reproduces all colors in the process. Cormac Photocopy Corp., 80 Fifth Ave., New York 11.

For more details circle #462 on mailing card.

(Continued on page 188)



LIGHTING FIXTURES

WROUGHT IRON
BRONZE
STAINLESS STEEL
ALUMINUM

ARCHITECTURAL LETTERS

BRONZE, ALUMINUM, NICKEL-SILVER



BRONZE or ALUMINUM

MEMORIALS • HONOR ROLLS
DONOR & PORTRAIT TABLETS

Illustrated Catalogs Sent on Request



MEIERJOHAN-WENGLER
1102 W. 4th St. CINCINNATI 2, OHIO

What you should know about Folding Chairs

Before you buy ANY folding chair let us send you the complete story of CHANNEL FRAME CONSTRUCTION

Compare the resilient strength of Lyon channel frame construction. Compare Lyon design — backs and seats curved to match body contour — round, smooth edges and pinch-proof hinges.

Send for proof that Lyon gives more in comfort, safety and long life at the lowest possible cost.

BUILT BY
LYON



LYON METAL PRODUCTS, INC.
426 Monroe Ave., Aurora, Ill.

Send me the complete story of Lyon Chairs and Channel Frame Construction.

NAME _____
ADDRESS _____
CITY _____ ZONE _____ STATE _____



"GENEVA wide cabinet selection permits planning without limitation"

HAROLD S. BRADLEY, President • Bradley and Bradley Inc.
Architects and Engineers • Rockford, Illinois



Glenview Junior High School, Glenview, Illinois, Bradley and Bradley Architects

Greater Durability! Lower Maintenance! Permanent Beauty! Choice of Colors!

You will find every cabinet and casework requirement more readily filled with greater freedom of design—by Geneva's more complete line of standard cabinets . . . and advanced facilities for custom design. And, Geneva's quality construction . . . superior finish . . . and many exclusive features are unparalleled in the industry. Consult a skilled Geneva school specialist for assistance on your planning problems.

New IMPASTO . . . Geneva's exclusive textured cabinet finish in etch-line steel. New warmth in appearance with the dignity and strength of Gibraltar.



GENEVA MODERN KITCHENS
DIVISION OF ACME STEEL COMPANY
Geneva, Illinois

There's a Geneva Cabinet for Every Class Room Need



**Ironing Board
Cabinet**



**Wardrobe
Cabinet**



**Food Staples
Cabinet**



**Tote Tray
Cabinet**

GENEVA MODERN KITCHENS
School Division—Dept. NS 4-60 • Geneva, Illinois
Please send information on Geneva School Cabinet
and Casework Line

NAME _____
SCHOOL OR FIRM _____
ADDRESS _____
CITY _____

Medallion Language Laboratory Has All-Transistor Recorder



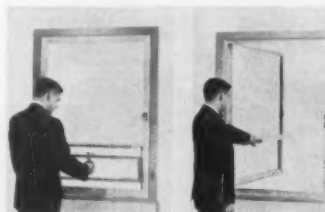
Transistorized components especially built for educational use are used throughout the Medallion language laboratory which features expandability in two directions. The electronic system can be upgraded in instructional level as well as in the number of students accommodated. In-

stalled economically for a limited number of students, the Medallion can be expanded to include up to 50 students as demands increase. Simple, plug-in electronic units added to existing positions provide higher-level teaching and student participation without obsoleting any part of the original equipment. Every unit is engineered expressly for language teaching, as a result of a DuKane research project in cooperation with Morrison Recording Laboratories. The Medallion is a complete laboratory facility and includes the instructor's console, scientifically designed student booths, and all of the electronic components required for a complete teaching job at all levels of instruction. **DuKane Corp., St. Charles, Ill.**

For more details circle #463 on mailing card.

Emergency Exit Window for First-Floor Evacuation

Designed for emergency exit from ground-floor classrooms and other areas, the Lupton Emergency Exit Window is hung on three half-surface hinges that allow the complete window to swing outward 180 degrees from its frame. The aluminum window resembles and can be used with standard projected windows, and offers all the advantages of regular projected ventilator windows, including air-flow directed upward, protection from rain and ease of



cleaning. Constructed from heavy extruded aluminum sections, the windows are available in widths from two feet, 11 inches to three feet, four inches, and in heights from four feet, one inch to five feet, one inch. If desired for uniformity in appearance, the Lupton Emergency Exit Window is also available without projected ventilators or with horizontal muntins. **Michael Flynn Mfg. Co., 700 E. Godfrey Ave., Philadelphia 24, Pa.**

For more details circle #464 on mailing card.

"The Lustre that Lingers"



DOLCOWAX

The lustrous,
non-scuff FLOOR WAX
that outlasts them all

DOLCOWAX spreads swiftly on large floor areas where in addition to appearance, safety and durability are major considerations. Premium quality **DOLCOWAX** is a money saver because it gives non-scuff protection longer. **DOLCOWAX** second-coats beautifully without crawling. Easy to apply on linoleum, cork, asphalt tile, mastic, rubber, vinyl or sealed wood flooring.

For free sanitary survey of your
premises ask your Dolge service man

Dependable
DOLGE
WESTPORT, CONNECTICUT

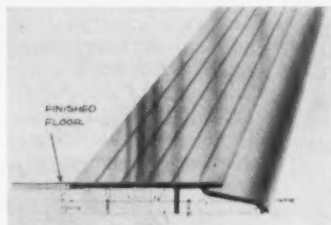
Seven Colors Added to Tile Floor Line

The R.C.A. tile flooring is now available in seven new colors in medium tan, grays and blue. Four of the new colors are shown in the Flexi-Flor (Marbleized) line with three colors added in the Tara-Flor (Terrazzo) design. The rubber tile flooring is produced in rolls for ease of installation. **The R.C.A. Rubber Co., 1833 E. Market St., Akron 5, Ohio.**

For more details circle #465 on mailing card.

Zero Door Saddle Eliminates Tripping

Specially designed for out-opening doors in schools, hospitals and other institutions where extra safety is important, the Zero non-trip saddle can be fitted with either



a flexible hook or an extruded rigid interlock. It is available in extruded bronze and aluminum and is an addition to the complete line of weatherstripping for regular and sliding doors and windows, lightproofing and soundproofing manufactured by **Zero Weather Stripping Co., Inc., 451 E. 136th St., New York 54.**

For more details circle #466 on mailing card.

(Continued on page 190)

FOR TRULY CAREFREE SCHOOLS



St. Regis

PANELYTE®
Everywhere!

Wonderfully tough surfaces that withstand scuffs, spills and stains . . . beautiful, easy-to-clean surfaces that are the custodian's pride. You get both when your school has rugged Panelyte surfaces on desks and bookcases . . . radiator covers and wainscoting . . . in fact, everywhere the going's rough! Panelyte, the decorative high-pressure laminate,

offers you many other advantages as well. It *never* needs refinishing. And Panelyte's low reflectance value is easy on young eyes. For additional details on Panelyte . . . as well as a list of school equipment manufacturers now using Panelyte . . . write to St. Regis Paper Company, 150 East 42nd Street, New York 17, New York.



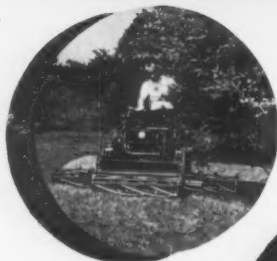
GRASS IS HERE TO STAY ...is your mower?

invest in a

Locke

and save!

COMPARE:



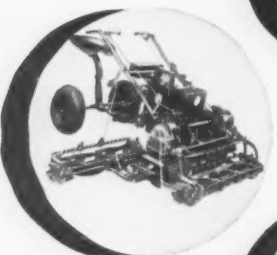
● MANEUVERABILITY

A LOCKE turns at any angle. Overhangs raised borders by 1/3. Cuts trimming time in half; leaves no streaks, rolled or uncut grass. Does yours?



● SERVICE

LOCKES are sold and serviced only by specialists, averaging 23 years in business. They must meet our code of ethics. Who services yours?



● LONG TERM EQUIPMENT

A LOCKE'S life expectancy is 3000-4000 hrs. (14 to 19 yrs.) What's yours?



● DEPRECIATION

A LOCKE'S dollar depreciation averages 57% in 10-19 yrs. (Others: 69% in 10-14 yrs.) What's yours worth today...10 years hence?

SINGLES: 25" and 30"
Plain or reverse
2 1/2, 5 h.p. 4 cycle engines

TRIPLEX: 70" and 75"
Plain or Reverse
7, 9 h.p. 4 cycle engines

Sulkies Attach.

Locke

POWER LAWN MOWERS

1351 Connecticut Avenue

Bridgeport 1, Conn.

A product of Locke Steel Chain Co.



Send for
these New
Locke
data sheets

Now is the time to take your grass cutting costs seriously. ASK YOUR LOCKE Service Dealer for the facts, or write.

Locke Mower Div.
Locke Steel Chain Co.
1351 Connecticut Ave., Bridgeport 1, Conn.

Gentlemen: We are most certainly interested!

- ☐ Please have your dealer phone me.
☐ Send your latest literature.

NAME _____

COMPANY _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____

Toilet Tissue Dispenser Holds Big Supply

Three to seven days supply of tissue can be held in the new "Tissue-Master" dispenser. It is made of durable white plastic with a burnproof chrome top, is quiet in operation and refills easily. When the first



roll is finished, the empty core is removed and the second roll automatically drops into place. The plastic and chrome construction facilitates maintenance, resists rust and never requires painting. Steiner Co., 740 Rush St., Chicago 11.

For more details circle #467 on mailing card.

Super Tough Magnetic Tape in "Scotch" Brand No. 311

The new "Scotch" Brand No. 311 magnetic tape with Tenzar backing is a super tough product designed for rugged use conditions, including frequent repeat, continuous play and constant handling. It is tear and stretch-resistant, non-drying and free-running, yet compares in price with standard recording tapes and has uniform, high potency oxides for brilliant sound reproduction and full-range frequency response. The patented Silicone Lubrication impregnated throughout the entire coating assures effective, lasting protection for recorder heads. Minnesota Mining & Mfg. Co., Magnetic Products Div., 900 Bush St., St. Paul 6, Minn.

For more details circle #468 on mailing card.

Conserv-a-Matic File Operates Electrically

A development in automated filing to conserve time and effort is now available in Conserv-a-matic. Operating electrically and automatically, it eliminates bending, walking, stretching and pulling or pushing of



file drawers. Pushbutton operation brings the desired set of files within reach of the sitdown file clerk within an average of ten seconds, permitting quick access to or filing of material. Conserv-a-matic units are made of heavy gauge furniture steel in various heights, equipped with 110 volt motor with plug which fits any receptacle. Floor space is saved since the system permits use of full wall space to the ceiling. Supreme Steel Equipment Co., 53rd St. & 1st Ave., Brooklyn 32, N.Y.

For more details circle #469 on mailing card.

Steel Magazine Rack Has Movable Partitions

Magazines, reference material and other literature can be stored or displayed in the three-shelf rack introduced by Smith Systems. Designed to hang on the wall or stand on table or desk, the all-steel rack



has movable partitions for orderly separation of material of any width up to nine inches. The rack and the loose dividers of formed steel are finished in tan baked enamel. Smith Systems Mfg. Co., 212 Ontario St. S.E., Minneapolis 14, Minn.

For more details circle #470 on mailing card.

R-15 Nor-Lake Refrigerator Has Two Locking Doors

Eight adjustable plated wire shelves for efficient food storage behind two locking doors are provided in the new R-15 15-cubic foot refrigerator introduced by Nor-Lake. Features of the new unit include automatic condensate removal, heater strips around both door openings to seal in the cold, and interior of embossed aluminum. Nor-Lake, Inc., Second & Elm, Hudson, Wis.

For more details circle #471 on mailing card.

Heavy Duty Lounge Furniture in Attractive Domino Line

Flexibility, modern styling and heavy duty construction with lightness of appearance are built into the attractive Domino line of tables and seating for student and teacher lounges, residence and other areas in public and private schools. Modular in design, the components can be combined to fit any space and in any arrangement required. Sturdy frames of common design are available in 36, 48, 72, 96 and 120-inch lengths for combining with seat-

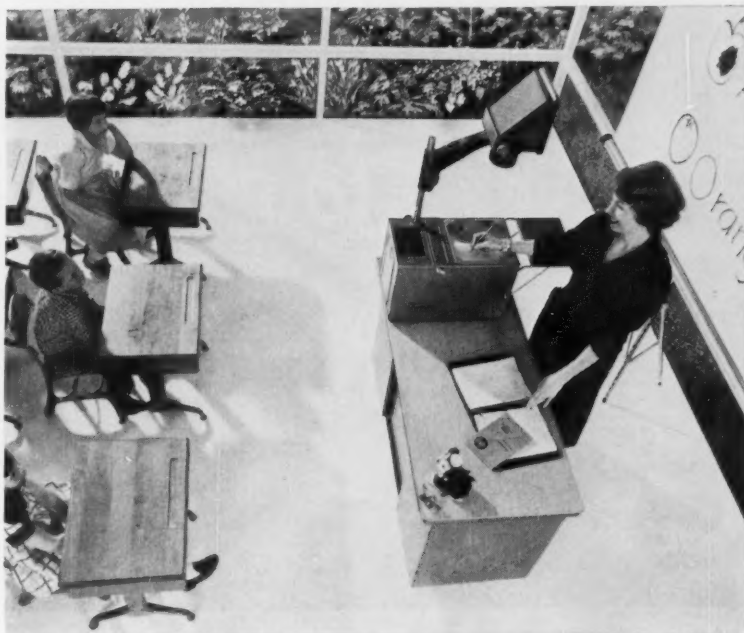


ing and table units in straight-line or corner arrangements. The steel frames are welded, one-piece units finished in white, turquoise, black or copper mist. Seating units are cushioned with foam rubber supported by heavy gauge No-Sag springs, covered with durable Doe-Vin, Nylon or Nylo-Saran fabrics in a choice of colors. Table tops are of reinforced Fibersin plastic, self-edged, in white cork, cherry or American Walnut finish. The Troy Sunshade Co., Troy 1, Ohio.

For more details circle #472 on mailing card.

(Continued on page 192)

Even in classrooms sunshine bright...



AO's NEW OVERHEAD DELINEASCOPE

gives the clearest image you've ever seen!

This revolutionary new overhead projector, by American Optical Company, was developed around a powerful 1000 watt light source to give you the brightest... biggest projected screen image you've ever seen. Even the extreme corners are sharp and clear because a specially designed Fresnel lens affords perfectly balanced illumination to every square inch of screen area.

This precision teaching instrument will project all the line, form and color of a 10" x 10" transparency up to a huge 177 sq. ft. screen image... in crisp, accurate detail.

You'll enjoy using this instrument because you face your class at all times... observe every movement and expression of subject reception and understanding.

AO's Overhead Delineascope helps give your program an unlimited flexibility that is not possible with any other AV medium. You can emphasize or dramatize by adding to your prepared teaching material on-the-spot.

You'll want to see all the new, exclusive features that make this instrument a practical investment in creative teaching. Your AO Salesman or Audio-Visual Dealer will be happy to arrange a demonstration at your convenience.

**American Optical
Company**

INSTRUMENT DIVISION, BUFFALO 15, NEW YORK

Dept. D35

Please send complete information on AO's New Overhead Delineascope.

Name

Address

City Zone State

IN CANADA write — American Optical Company Canada Ltd., Box 40, Terminal A, Toronto, Ontario



FAIR-PLAY FB-50-A2 (above) is THE scoreboard for high school or college — most popular football scoreboard from coast to coast. See our ads in Sweet's, American School and University or write for Catalogs: Football No. 76; Basketball No. 27A; Baseball No. 81.

FAIR-PLAY SCOREBOARDS • Dept. N5 • Box 359 • Des Moines 2, Iowa

AJUSTRITE CHAIRS AND STOOLS



- Proper classroom posture
- No soiled hands when adjusting seat
- Child can adjust seat—it's so simple

AJUSTRITE TYPING CHAIRS

Model TSC-1520 Typing Chair and Model 2228 Table
Adjust the chair, not the table, and save on your original investment. Saddle shaped hardwood seat adjusts from 16" to 21". Form fitting backrest (metal or plywood) has vertical and horizontal adjustments of 5°.

Model CPC-1520 Typing Chair

Form fitting plywood seat adjusts from 15" to 20". Form fitting plywood backrest adjusts 5° vertically and horizontally.

FREE TRIAL Use an AJUSTRITE chair and table for 30 days without obligation. Prove to yourself the many advantages AJUSTRITE offers in comfort, utility and economy. Write today—we'll do the rest.

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32 Models for Factories • Schools • Laboratories • Hospitals • Offices

AJUSTO EQUIPMENT CO.
515 CONNEAUT ST. BOWLING GREEN, OHIO



Low-Cost Radial Drill Press Offers Large Capacity

Designed to drill to the center, or any point, of a 32-inch square, the new Delta Radial Drill Press functions for rapid multiple drilling operations, horizontal drilling and angular drilling. It also performs accurate sanding, shaping, routing, mortising and other operations. The large capacity,



flexible machine features a head that swivels 360 degrees around the column and tilts more than 90 degrees to the right and left. In addition to low cost, the press has controls conveniently grouped, a built-in stop, choice of four speeds and a large work table. **Rockwell Mfg. Co., Delta Power Tool Div., 465 N. Lexington Ave., Pittsburgh 8, Pa.**

For more details circle #473 on mailing card.

Air Cool Blower Condenser for Rooftop Installation

The LSBC (Low Silhouette Blower Condenser) is a new type air cool blower condenser for use in rooftop locations. Noise is kept at a minimum and the shape allows for location on most roofs without reinforcing of roof members, and without regard to prevailing wind. **Dunham-Bush, Inc., 179 South St., West Hartford, Conn.**

For more details circle #474 on mailing card.

Drum Adaptor for Use With Vacuum Power Unit

Any General 4-Star Series E-Con-O-Vac Industrial Vacuum Cleaner can be used with the new General Drum Adaptor and Power Unit for maximum tank capacity in



cleaning. The Drum Adaptors fit any drum or container, providing the diameter is 17-inch minimum and the capacity no more than 55 gallons. Power Units and Drum Dollies can be purchased separately for use on 30 to 55-gallon drums. **General Floorcraft, Inc., 3630 Rombouts Ave., Bronx 66, N. Y.**

For more details circle #475 on mailing card.

(Continued on page 194)

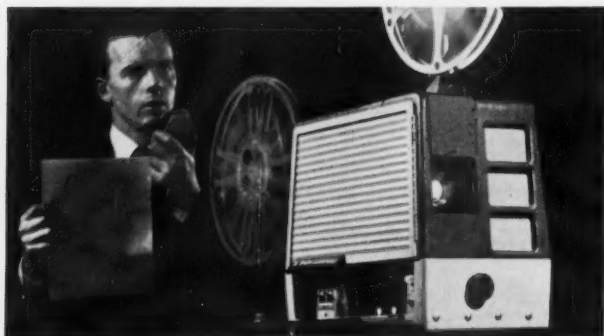
"Ecoutez!"
"Répondez!"



Now—Question and Answer language teaching with new Bell & Howell 2-channel recorder!

This new language recorder enables a teacher to record translation "questions" on one channel of the tape. The student listens, and records his "answers" on the second channel. When the lesson is completed, the teacher and student can listen to both channels simultaneously for critical comparison. Student can re-record as often as necessary to master the lesson. Tape can be re-used

indefinitely by any number of students. Accidental erasure of "question" channel is prevented by concealed switch. This recorder is the basic unit for any language lab. It serves equally well for speech, drama and music instruction. Compact, portable design, traditional quality. Mail coupon today for more complete information.



DOUBLE the value of Language-Teaching Films!

This Bell & Howell movie projector lets you put a sound track on any 16mm film, sound or silent! Show a foreign language film, then show it again with English translation. Add foreign language commentary to silent films. The Filmsound 302 Magnetic Recording Projector lets you back up, erase, re-record as often as you like. Famous Bell & Howell quality assures finest performance in all 16mm projector uses.

FINER PRODUCTS THROUGH IMAGINATION
Bell & Howell

*Qualifies for purchase under Public Law
864 (National Defense Education Act).*

Bell & Howell,
7155 McCormick Road, Chicago 45, Ill.
Gentlemen: Please send me information on the
new 786-AV-1 Specialist Tape Recorder, and the
Filmsound 302, and a copy of "Teaching and
Training with Motion Pictures."

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CITY & STATE

ORGANIZATION

☐ I would like a complete classroom demonstration at no cost or obligation.



Mobile Double-Sided Book Cart of All Steel Construction

Eighteen feet of book storage space is provided in the mobile, double-sided book

cart recently introduced by Grade-Aid. The cabinet is only three feet wide by three feet high but the two welded shelves on each side of a center separator permit access by several students at the same time. Both sides of the cart extend above the top shelf to hold books in place and the four heavy duty casters make it easy to handle. It is available in a lifetime gray or tan enamel finish. **Grade-Aid Corp., 46 Bridge St., Nashua, N.H.**

For more details circle #476 on mailing card.

Sani-Stack Tray Rack Has Plastisol "Shock Absorbers"

Plastic and fiberglass trays are protected from chipping or other damage when

dropped into Sani-Stack Tray Racks with "shock absorbers." Plastisol coated metal pieces to protect the trays may be applied to racks now in use, or installed in new Sani-Stack Tray Racks when ordered. The "shock absorbers" are attached by clips and stainless steel wire. **Metropolitan Wire Goods Corp., No. Washington St. & George Ave., Wilkes-Barre, Pa.**

For more details circle #477 on mailing card.

Simplified Installation for Yale & Towne Mono-Locks

Rugged construction, attractive appearance with a broad range of designs, and



simplified installation are features of the recently introduced Mono-locks. Developed at the Yale & Towne Research Center, they are designed to withstand continuous hard usage in institutions and other public buildings. The Mono-locks are fully factory assembled, ready for the simple installation process. Knob designs match those of Yale cylindrical locksets, mortise locksets and panic exit device trim, and the Mono-locks can be keyed alike, master-keyed or incorporated into existing Yale masterkey systems. All components are of rugged construction. **Yale & Towne Mfg. Co., 11 S. Broadway, White Plains, N.Y.**

For more details circle #478 on mailing card.

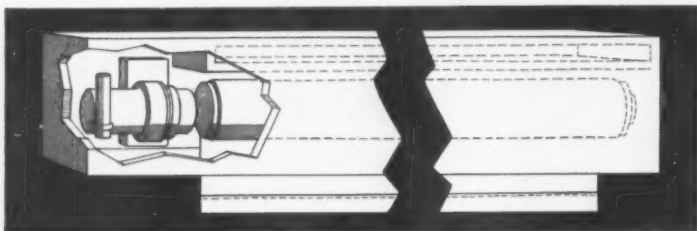
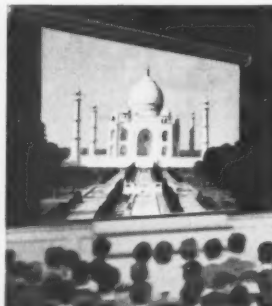
Audio Visual Bulletin

DA-LITE SCREEN COMPANY

IN THE INTEREST OF
EDUCATIONAL
AV PROFESSIONALS

FINAL SUCCESS OF FILMED PRESENTATION DEPENDS ON QUALITY OF PROJECTION SCREEN

Good filming, careful projection—yet the picture lacks clarity and colors are weak! This is a case of projecting on an improper surface. Da-Lite engineers have developed a screen surface that protects the audio-visual professional from such a problem. The famous White Magic glass-beaded surface is unequalled in quality. This screen gives outstanding clarity of picture; faithful reproduction of color. You'll find that you can seat your audience over a wider area with this new surface, too. For complete details on types of screen surfaces available and their proper application, write Engineering Department, Da-Lite Screen Company, Inc.



NEW! ELECTRICALLY-OPERATED SCREEN IDEAL FOR INSTALLATION IN AUDITORIUMS

The exclusive Da-Lite Electrol® is electrically-operated . . . disappears completely when not in use, reappears in seconds at touch of control button.

Developed for use in schools, churches

and industry—this new screen may be installed in a concealed position—or mounted on wall and finished to match! Write for technical bulletin with complete details on this outstanding product.



Audio
Visual
PROBLEM?



WRITE TODAY! We'll be glad to help you find the answer to your audio-visual problem.

Serving The Audio-Visual Field For Over Half A Century

Da-Lite®
SCREEN COMPANY, INC., WARSAW, INDIANA

Clean-O-Matic Floor Machine Now in 23-Inch Brush Spread

The Clean-O-Matic floor machine is now available with a 23-inch brush spread for



fast and economical cleaning of large floor areas. The 1½ h.p. motor provides power for cleaning even the toughest surfaces and for steel wooling floor preserver applications fast and efficiently. Non-marking gray rubber bumpers and cable, toe-activated handle adjustment, large 5-inch semi-pneumatic tired wheels and other features of the Clean-O-Matic line are incorporated into the new large model. **Cassidy Products, Inc., 2285 University Ave., St. Paul 14, Minn.**

For more details circle #479 on mailing card.

(Continued on page 196)

MORE FOR YOUR MONEY!

Here's how the quality APSCO DEXTER saves you Big Money!



The Dexter

INITIAL COST



Others

INITIAL COST

Some other sharpeners sell for less than the Apsco Dexter, BUT...



The Dexter

LIFE SPAN



Others

LIFE SPAN

the Dexter lasts much longer, SO...



The Dexter

YEARLY COST



Others

YEARLY COST

the Apsco Dexter provides unequalled economy... in every respect.

Apsco pencil sharpeners are endorsed by school custodians because their heavy-duty design and high-quality manufacture insure reduced servicing and repairs, and give schools the best in long range value.



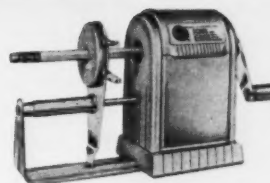
Apsco

DEXTER
SUPER-10

APSCO offers the DEXTER SUPER 10—the pencil sharpener with built-in endurance.

FEATURES

- ★ The Apsco DEXTER has proven lasting quality—DEXTER models are still in service after nearly 40 years of continuous operation.
- ★ The Apsco DEXTER is provided with an adjustable point stop which eliminates pencil waste.
- ★ The Apsco DEXTER is the *only* all-steel, double bearing pencil sharpener on the U.S. market.
- ★ The Apsco DEXTER features economical replacement cutterhead assemblies, installed with no special talents needed.
- ★ The Apsco DEXTER is also designed for kindergarten use, and will sharpen to blunt points for safety by adjusting the point stop to "medium."



The APSCO DANDY

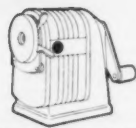


The APSCO ATLAS

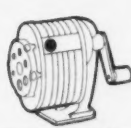
Two other "all steel" models, like the Apsco DEXTER, are also approved and accepted by school systems throughout the country.

Apsco

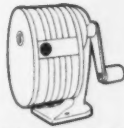
This popular family of budget-priced Apsco sharpeners has won approval and acceptance in the nation's schools.



The Apsco PREMIER
Finest low-cost portable sharpener with heavy-duty cutterhead.



The Apsco GIANT
Universally accepted general-purpose model.



The Apsco CHICAGO
Economy model. Sharpens only standard size wood-cased pencils.

Send for the NEW **FREE** Apsco Catalog!

APSCO PRODUCTS, INC.

P.O. Box 840, Beverly Hills, California (15-4)

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ZONE

STATE



For unmatched luxury and beauty in display and parade flags, your most economical investment is a Dettra flag. Their superior quality of materials and workmanship, their long-lasting strength and enduring beauty give you far more for your budget dollar. Exclusive with Dettra:

INDOOR DURA-LITE NYLON—the ultimate in durability. Unaffected by rain. Brilliant colors.

GLORY GLOSS TAFFETA—medium weight. Wide range of rich, fade-proof colors.

ROYAL OAKS RAYON—superb, heavy, opaque "Cordura."

Also—school flags and banners made to order. Complete line of flag accessories for school bands, stadiums, special occasions. For FREE SAMPLES, literature, prices, and name of nearest Dettra Dealer, write Dept. N.



DETTA FLAG CO., INC.
Oaks, Pennsylvania

Academy Series Chair Has Increased Stability and Balance

New tapered legs which add beauty while increasing stability and balance are featured in the No. 210 Academy Series Chair recently introduced by General



School Equipment. Described as a completely new concept in seating, the chair has rear legs which extend out and back as a wall-saver feature, but do not interfere with students getting in and out, or with traffic in the aisles. The General Body-tone Seat is used on the No. 210 for comfort with correct posture, and book racks in color or chrome are available as optional equipment. General School Equipment Co., 869 Hersey St., St. Paul 14, Minn.

For more details circle #480 on mailing card.

Heavy Duty Grinder for Plane Irons and Chisels

A grinding attachment, designed for grinding to perfect condition the cutting edges of plane irons and chisels up to 2½ inches wide, is a feature of the new No. 697 heavy duty Stanley unit. The design permits feeding the tool in the holder for as fine a cut as desired. The grinder has a special slow-speed motor, is lubricated for life, and the frame construction permits grinding of odd-shaped parts. The Stanley Works, 195 Lake St., New Britain, Conn.

For more details circle #481 on mailing card.

Fiberglass Birds and Animals Form Saddle-Mates for Game-Time

Designed for children two to ten years of age, Saddle-Mates are a Game-Time play



creation providing imaginative fiberglass birds and animals for "riding." They are mounted on sturdy steel springs with steel mounting plates and are available with portable no-tip bases, or without bases for permanent installation in cement. The specially designed springs provide a pleasant rocking motion without danger of pinching and the Epoxy resin coatings protect the colorful finishes, even in outdoor use. Game-Time, Inc., Litchfield, Mich.

For more details circle #482 on mailing card.

Desktop Previewer for 35mm Filmstrips

Speed and convenience in previewing audio-visual materials is provided in the Viewlex Instant 35mm Filmstrip Previewer for desktop use. The only working parts on



the new previewer are the filmstrip advance knob, the focusing knob and the on-off switch. Threading requires only the start of the leading edge of a filmstrip in the transport slot. The oversized seven by nine-inch ground glass viewing screen gives sharp contrast for color or black and white films. Carried in a luggage-type case, the Previewer is set up for use in a matter of seconds. Viewlex Co., Inc., 35-01 Queens Blvd., Long Island City 1, N.Y.

For more details circle #483 on mailing card.

CT Waste Destructor Is Low-Cost Incinerator

Providing incineration at a low price, the new CT Destructor is built with a heavy gauge outer shell, high heat duty firebrick back and overall insulation. A Dump-and-Shaker Lever provides for easy removal of ash without bending and shoveling and the swing-away charging door facilitates operation with safety. The incinerator is designed primarily for use in hospitals, schools, universities and other institutions, and can be placed in almost any location. Morse Boulger, Inc., 80 Fifth Ave., New York 11.

For more details circle #484 on mailing card.

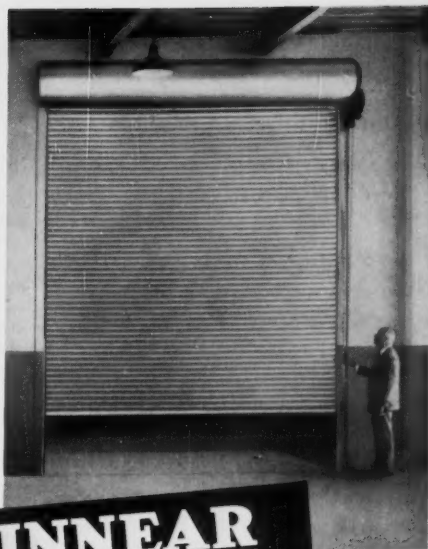
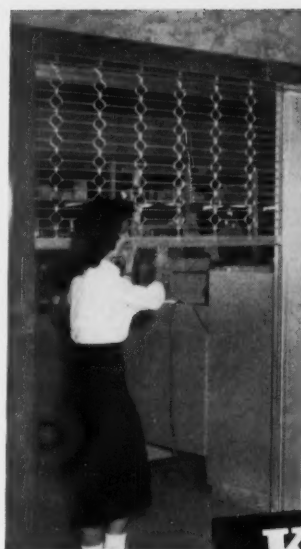
Mobile Milk Dispenser Handles Cartons or Bottles



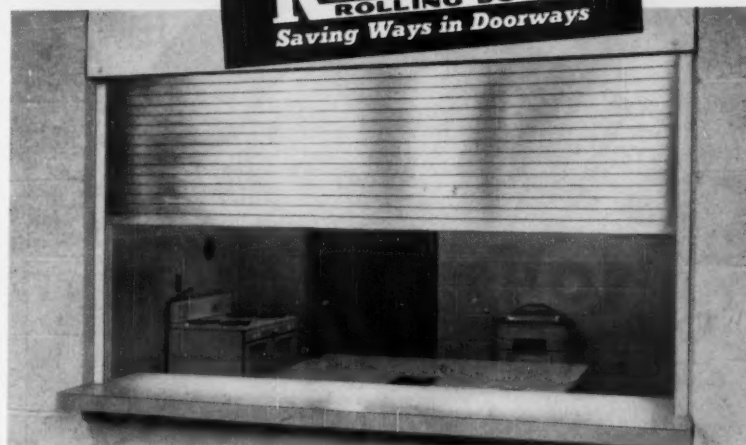
Three independent elevators dispense cartons or glass containers of milk at serving height in the new Lincoln mobile milk unit. The refrigerated, self-contained dispenser requires no drain connection and is constructed of stainless steel. It stores up to 985 half pints of milk and is easily wheeled to any desired location. Lincoln Mfg. Co., Inc., P.O. Box 2313, Fort Wayne, Ind.

For more details circle #485 on mailing card.

(Continued on page 198)



KINNEAR
ROLLING DOORS
Saving Ways in Doorways



Doorway, Counter, and "Area" Closures for Every School Need

You'll want the many advantages of Kinnear Rolling Counter Shutters — for openings at food-service and locker-room counters . . . for pass-through openings where shop tools or lab equipment is kept . . . for ticket, check-room and refreshment booths in auditoriums, or any similar need.

The aluminum or steel curtain coils compactly above the opening, wastes no usable space, stays completely out of the way, out of sight!

When closed, they block all access through the openings. The neat, flat surface of Kinnear's modern "midget" counter-shutter slats blends with any decorative scheme, wall material or

architectural treatment. Kinnear Rolling Shutters are built to fit any counter.

Kinnear Metal Rolling Doors offer the same space-saving, coiling upward action with maximum operating efficiency and protection for doorways of any size.

Kinnear Rolling Grilles (of steel or aluminum) offer the same coiling upward action in an "openwork" curtain of bars and links that block passage without cutting off light, air, or vision. The ideal "barrier" at corridors and entrances where sections of a room or building may periodically want to be cut off from use.

Write for complete catalog!

The **KINNEAR** Manufacturing Company

FACTORIES: 1200-30 Fields Ave., Columbus 16, Ohio; 1742 Yosemite Ave., San Francisco 24, Calif.

Offices and Agents in All Principal Cities

SpeedClean Dry Vacuum for Complete Dry Clean-Up



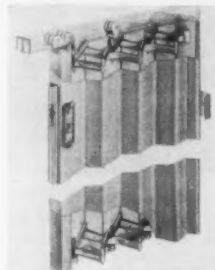
Designed to perform complete dry maintenance clean-up in one trip, the new

dry vacuum SpeedClean has all equipment for cleaning rugs, hard floors, walls and overhead trim with hose, wand and other accessories. The disposable filter dust bag at the rear of the machine is easily removed and the large reusable refuse collection bags have draw strings at the top. A "Dust Mop Well" permits cleaning dust mops, dust cloths, erasers and the like without stirring or spreading dust. When used in washroom maintenance, the utility basket carries supplies of towels, soap, waxes and cleaning compounds. SpeedClean is available in four models. The new vacuum cleaner unit is practical for use in schools, colleges, hospitals and other institutions. Nobles Engineering & Mfg. Co., 645 E. Seventh St., St. Paul 6, Minn.

For more details circle #486 on mailing card.

Pantograph Folding Door Features Rigidity With Quiet

Smooth, quiet operation and self-lubricating nylon wheels make the new Pantograph Folding Door easily opened and closed. The super-strength channel-hinge, pantograph frame construction gives maximum rigidity with minimum sway on the anti-chatter I-Beam aluminum track. The fabric covering is snap-locked to the steel frame, and puckering and wrinkles are



eliminated through use of laminated nylon tape which is heat sealed to the covering. Curtition Corp., 12616 Chadron Ave., Hawthorne, Calif.

For more details circle #487 on mailing card.

How DUDLEY gives you the best in Combination Locker Locks



S-540

Master-Keyed
Built-in Lock

Fits all locker piercings.
Quick Combination
change with special
reset key.

Master-Key Control



P-570

Master-Keyed
Combination Padlock

Finest of all master-keyed padlocks. Cast aluminum case, extra heavy steel shackle. Self-locking. Rotating dial.

In addition to the Master Chart, supplied with every Dudley Lock installation, the S-540 and P-570 may be opened by the unique Dudley Master-Key.

This key, which cannot be duplicated on commercial key-making machines and which it is practically impossible to create from the lock itself, gives absolute safety control.

Any locker can be opened in an emergency on a moment's notice, yet only by an authorized person. And there is the constant assurance that no copy can be made of the key except by Dudley, on proof of responsibility.

This is another reason why Dudley locks have been favorites for 39 years among school people everywhere.

DUDLEY LOCK CORPORATION

1436 Old Dixie Highway, Vero Beach, Fla.

The standard of controlled locker protection since 1921

Plexiglas Shield Prevents Saw Accidents

The new Brett-Guard, formed of shatter resistant Plexiglas to cover circular saws, permits full vision and accuracy in operation without the chance of accident. The shield protects the operator from flying chips, prevents physical contact with the blade, and resists displacement while in use. It is available for all circular table saws with blades six to 16 inches in diameter. Brett-Guard Corp., 105 S. Dear St., Englewood, N. J.

For more details circle #488 on mailing card.

Safety Kit for Radial-Arm Power Tools

Two guards for use in a variety of grinding and buffing operations are supplied by DeWalt in the Safety Kit for Radial-Arm Power Tools recently introduced. The guards fit over wire wheels up to six inches in diameter or cup wheels up to four inches in diameter and are easily attached. A com-



plete safety kit consists of one guard bracket, two guard shrouds, one tool rest assembly and the necessary hardware. The new guards will supplement the function of the standard guard and offer increased safety in the use of radial-arm power tool accessories. DeWalt Div., American Machine & Foundry Co., Lancaster, Pa.

For more details circle #489 on mailing card.

(Continued on page 200)



How to feed a school full of children on a budget

Keep costs down with this economy-priced, mobile folding table—the new HOWMATIC “TN.” Available in 4 sizes.

Feeding a school full of children on a budget isn't too difficult. The trick is to do it without skimping.

When it comes to budgeting for your cafeteria tables, skimping's unnecessary. Not with the new economy-priced HOWMATIC “TN” available.

For all that, the new HOWMATIC “TN” offers you features available in no other table in its price range! To cite a few:

1. The HOWMATIC “TN” opens or folds in one, easy motion. Either action takes just 3 seconds. Here's why:

Folded, the HOWMATIC “TN” stands on casters. These free-wheeling casters roll smoothly, easily, making the unit a snap to fold or unfold.

When the HOWMATIC “TN” is folded, rubber-capped center legs remain free of the ground. The moment the table is fully open, however, these center supports come down automatically, grip the floor firmly, anchoring the unit.

2. Strength where it counts. The HOWMATIC “TN” is built around the same type of durable, all-steel chassis for which HOWE tables are noted. Steel rivets join this chassis to the table's 14-gauge tube steel legs permanently.

Chassis and legs are finished with a bright, rustproof, Cadmium plating that won't chip, never requires repainting.

3. Durable top. The HOWMATIC “TN” comes with a *solid*, built-up top consisting of a plywood sheet covered with a layer of plastic laminate. (Your choice of patterns.) A hardboard backing adds extra strength. The entire top is trimmed with a plastic flush edge.

4. Compact and maneuverable. The HOWMATIC “TN” handles easily. 3", hard rubber, swivel casters insure maximum mobility—important when moving a table through crowded corridors.

Rustproof bearings assure long life, quiet, smooth, trouble-free service.

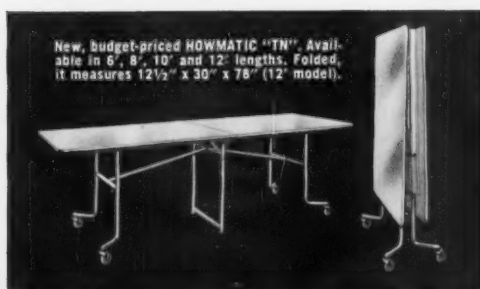
5. Safety features. Counterbalanced spring construction holds the unit in check, keeps the HOWMATIC “TN” from suddenly snapping open or slamming shut.

A $\frac{7}{8}$ " safety gap where the top's two halves would meet eliminates the danger of injured fingers. In addition, the HOWMATIC “TN”'s top has 2" radius safety corners.

Another safety feature is the table's low center of gravity. When active youngsters get playful or the folded unit is moved about hurriedly, the HOWMATIC “TN”'s design keeps table from tipping.

6. Saves valuable school activity time. No need to clean the HOWMATIC “TN” before folding and storing. At all times, surfaces are easy to reach and clean. In addition the unit's single-fold structure and $\frac{7}{8}$ " center seam eliminate corners where food particles otherwise might accumulate.

7. Seats pupils comfortably. The HOWMATIC “TN” seats from 8-18 pupils comfortably depending on whether 6', 8', 10' or 12' units are used.



FREE LITERATURE—CLIP COUPON NOW!

Howe Folding Furniture, Inc., 1 Park Avenue, N. Y. 16, N. Y.

Get data on the new, budget-priced HOWMATIC “TN” and other HOWE mobile folding units.

Name _____ Title _____

School _____

Address _____

City _____ Zone _____ State _____

Curved Metal Sides Give Fixture "Sculptured-Look"



The scientifically controlled low brightness feature of the Holophane Primalume Controlens is combined with the Sunbeam Sculpturama QRH7502 Series design to produce the "Sculptured-look" of the new Visionaire lighting fixture. Illuminated, curved metal sides complete the shallow

fixture and the sturdily framed panel has high transmission efficiency. It may be opened from either side on full-length "hook-on" hinges. **Sunbeam Lighting Co., 777 W. 14th Place, Los Angeles 21, Calif.**
For more details circle #490 on mailing card.

"300 Series" Stencil Duplicators for Electric and Hand Operation

A complete new line of stencil duplicators is introduced by Gestetner as the "300 Series." Included is a wide range of models, for both electric and hand operation, designed to provide equipment to meet any duplicating requirements. The "300 Series" machines embody the basic principles of printing, including the use of paste ink which prevents ink leakage and is com-

pletely clean in operation, yet has the simplicity and low cost of stencil duplicating. Styled by Raymond Loewy, the line has control knobs individually colored for quick identification. The Model 360, for automatic operation, permits loading of well over 500 sheets of paper into the feeding tray at one time. Ink is pre-selected by



dial for the full run. All machines in the "300 Series" accommodate sheets as large as 10 by 15 inches. **Gestetner Corp., 216 Lake Ave., Yonkers, N.Y.**
For more details circle #491 on mailing card.

Box and Pan Brake for Safe, Simple Shop Operation

Engineered with Pexto features for safe, simple operation in the school shop, the new PX-24 Box and Pan Brake is completely gauged and fully adjustable for precision bending of light sheet metal with many design features. The small, rugged machine has mechanical advantages for new speed and convenience in performing bending operations. An adjustable friction-brake lock prevents injuries and it can be locked in position to avoid unauthorized use. **The Peck, Stow & Wilcox Co., Southington, Conn.**
For more details circle #492 on mailing card.

Kemi-Kleen Sweeper Has Disposable Cleaning Cloth

A chemically-treated cleaning cloth that picks up dust, dirt and grit as it sweeps refuse is attached to the new Corridor Size Kemi-Kleen No. 40 Sweeper for efficient cleaning of corridors, gymnasiums, as-



sembly rooms and other open areas. The disposable cleaning fabric is quickly and easily attached to the sweeper with the new fast-gripping Hinge-Lock device and presents six clean areas per cloth for thorough utility before discarding. The No. 40 Sweeper has lightweight aluminum base for maximum pick-up of dust without leaning on the handle. The "Any-Angle" swivel handle permits cleaning from any position and the polyurethane foam base cushion gives resiliency for pick up of dust and dirt. **Lowndes Products, Inc., 4946 Parkside Ave., Philadelphia 31, Pa.**
For more details circle #493 on mailing card.

(Continued on page 202)

AT FARGO, N.D. . . .

Economy without Inconvenience

3 MORE NEW SCHOOLS*
STANDARDIZE ON . . .

SPENCER VACUSLOT® SYSTEMS

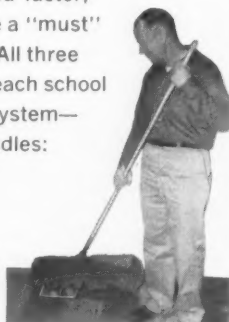


*James Madison School • Wm. McKinley School • Carl Ben Eielson School
Architect - Harold E. Bechtel, Fargo, N.D.

In planning three new elementary schools in Fargo, North Dakota, economy was a keynote. But superior sanitation standards had to be maintained, and faster, more efficient cleaning methods were a "must"

The solution was standardization. All three schools are of the same design. And each school is equipped with a Spencer Vacuslot system—the built-in cleaning system that handles:

- ✓ Carry-off of dirt and litter
- ✓ Vacuum cleaning
- ✓ Dry mop cleaning
- ✓ Wet pick-up after scrubbing
- ✓ Boiler flue cleaning



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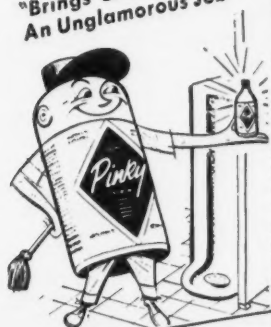
chair 1401

designed by
Ursula Meyer

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Indoors with...

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"Brings Glamour to
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**Banishes Odors, Germs
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Clean toilet bowls PERFECTLY
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Clean them QUICKLY—NEATLY
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Deodorize at the same time
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PINKY is clean and he will
keep your premises sparkling
clean also. Use PINKY on vitreous
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keep them sparkling white, clean,
pleasantly scented, day after day
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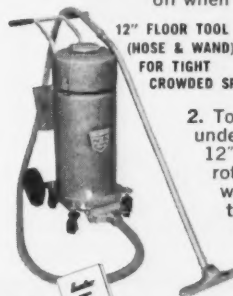
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1. With the detachable 24"
Pick-up Head, dry wet floors
and hallways as fast as you
walk. Water and dirt instantly
removed from every type of
floor. Not a squeegee, Speedry
gives uniform power pickup
along entire 24" intake. Cannot
overflow, automatically shuts
off when full.



**12" FLOOR TOOL
(HOSE & WAND)
FOR TIGHT
CROWDED SPOTS**

2. To dry small congested areas and
under desks, just "snap-on" Speedry's
12" Floor Tool (Hose & Wand). Fully
rotatable Pick-Up Head stays flush
with floor for full vacuum at all
times. Allows you to maneuver into
tight spots with just a twist of the
wrist. Removes water at cracks,
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and easily. Eliminates all mop-
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Speedry Says: "Clean The SPEED Way!"

Start now by sending for FREE Speedry literature, or
ask for a demonstration... Sales Representatives nationwide!

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Dept. NS4, 645 East Seventh Street, Saint Paul 6, Minnesota

WET PICK-UP MACHINES • SCRUBBERS • DRY VACUUMS • SERVICE CARTS



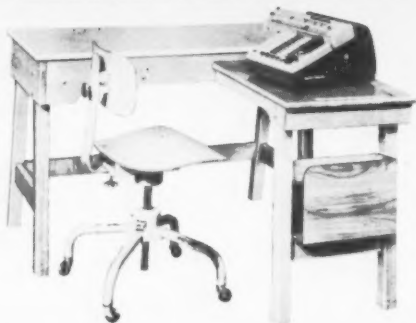
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FOR LARGE
UNOBSTRUCTED
FLOOR SPACES**

UNEXCELLED VALUE AND CRAFTSMANSHIP

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The Complete Line of Fine Classroom Furniture
Superbly styled—and sturdy • Efficient—and flexible
Used by schools throughout the nation

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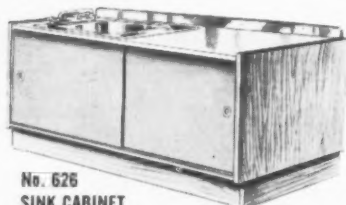


Full selection of adjustable typing desks; drophead, modular, electric desks; bookkeeping tables; posture seating.

Shown: No. 110 Modular Typing Desk; No. 48 3-way adjustable chair.

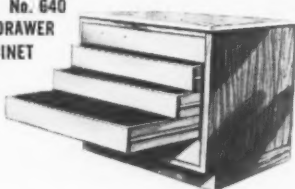
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Versatile, flexible and economical, both our Standard and Contemporary lines offer a wide choice of classroom cabinets, bookshelving, and teachers' cabinets for every room in your school.



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Another Desks of America first! Now perfected—revolutionary mar-proof plastic finish for all our cabinets and classroom furniture. Even more help to eliminate maintenance costs.

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These famous "Kenney" desks, tables and chairs have been manufactured in our New England plant for over two generations. Each item is constructed of northern birch kiln-dried at our own plant.

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Space and Noise Problem Solved With Foldoor Soundguard

A fabric-covered folding partition, with effective insulation and perimeter sealing around jambs and operating edges, closes out sound while separating space. The Foldoor Soundguard is ruggedly constructed, easy to maintain, and makes an



attractive wall when used to divide large rooms or other areas. The draw latch on high doors is released by a natural downward pull, facilitating handling and avoiding delay in case of emergency when installed in auditoriums or cafeterias. Holcomb & Hoke Mfg. Co., Inc., Dept. 1232, 1545 Van Buren St., Indianapolis 7, Ind.

For more details circle #494 on mailing card.

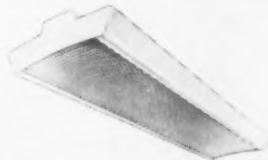
Heavyweight Mylar Film for Desk Laminator

A new heavy gauge film for use with the Apeco Ply-On Desk Laminator is made of DuPont Mylar polyester. Developed for laminating documents and records which are frequently handled to protect them from wear, Apeco "Heavyweight" Film is supplied in two sizes, in rolls 150 feet long. American Photocopy Equipment Co., 211 W. Dempster St., Evanston, Ill.

For more details circle #495 on mailing card.

Gateway Fluorescent Luminaire Is All-Plastic Fixture

The Guth Gateway Fluorescent Luminaire is designed with a new concept of construction. The extra strong, all plastic fixture features tubular designed side wings for added strength, lower side brightness and increased efficiency since the inner



side wall acts as a reflector. The Concave Gratelites hinge separately from sturdy steel end plates for maximum firmness and minimum maintenance. The Gateway is available with Concave Gratelite Louver-Diffuser or Concave Prismoid Gratelite. It is designed for pendant mounting or is adaptable for close-ceiling mounting with top plates in schools and offices. Edwin F. Guth Co., 2615 Washington Blvd., St. Louis 3, Mo.

For more details circle #496 on mailing card.

(Continued on page 204)

YOU CAN OPERATE YOUR SCHOOL LUNCH PROGRAM WITH GREATER EASE, EFFICIENCY AND ECONOMY



...with the New ATLAS HCP Portable Electric Hot and Cold Food Cart!

The new ATLAS HCP Food Cart offers outstanding features and advantages for all types of centralized kitchen feeding operations. The ATLAS HCP Food Cart functions with maximum efficiency as a transporter of bulk hot and cold foods and as a serving top and reserve food supply in one unit when the cart has arrived in the serving area.

You can transport and serve bulk hot and cold foods which will retain their original appetizing qualities, appealing freshness and nourishment over extended periods of time.

ATLAS Model HCP-165 Portable Electric Hot and Cold Food Carts now in daily use are feeding up to 400 children, or 200 adults. ATLAS Model HCP-2000 is feeding up to 600 children, or 300 adults.

Both models available in gray baked hammertone enamel or stainless steel finish.

The ATLAS HCP Food Cart offers impressive savings, in food service costs in school lunch programs. It eliminates the additional expense of a new kitchen when it is necessary to expand existing operations.

Please write for brochure containing complete information.



ATLAS DIVISION
NATIONAL CORNICE WORKS

1323 Channing Street
Los Angeles 21, California

Established 1911

NOW WASH WINDOWS HIGH or LOW *FASTER AND SAFER* with a Tucker Window Washer

HOW TO OPERATE

Custodians all over the country have operated Tucker Window Washers without previous demonstration or observation. If your custodian wants to try a Tucker Window Washer, we will ship pre-paid with the understanding that the washer may be returned for cancellation of the charges if not satisfied.

TUCKER WINDOW WASHERS Feature...

- **TELESCOPIC HANDLES**
Telescoping Aluminum Sections available for lengths up to 66 feet. Sections also come apart for use in other combinations. A 66 foot handle, brush and hose full of water weighs only 20 pounds.
- **AUTOMATIC, VISIBLE DETERGENT**
Valve controlled detergent dispenser makes and delivers detergent solution from compressed tablets... or clear rinse water as desired. Acrylic tube container shows contents at a glance.
- **COMPRESSED DETERGENT**
Compressed Detergent Tablets clean glass, but will not etch paint, stain stone or brickwork, nor injure grass and shrubs.
- **SPECIAL WINDOW BRUSHES**
Wide flare brushes with Nylon edges and Polyurethane foam centers wash windows, edges and corners in one swipe.

ONLY TUCKER WINDOW WASHERS can show you how to save time and money in cleaning your inaccessible windows. Up to now, it was necessary to erect costly scaffolding. With a Tucker

window wand, it is a simple time and money-saving task to clean those windows... and by standing on terra firma. Tucker offers eleven model sizes for most buildings from one to five stories. Most popular size, Model 4, reaches modern 3 stories and older 2 or 2½ story schools. Costs only \$69.80 delivered for use without detergent or dispenser.

Available through your favorite Sanitary Supply Dealer... or write for full particulars, prices and measuring instructions to...

TUCKER MANUFACTURING CO.
CEDAR RAPIDS, IOWA

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↑ From the classroom,
it's a mirror!



↑ From the dark observation room,
it's a window...

Wherever it's important to observe students or classes without their knowledge, *Mirropane*®, the "see-thru" mirror, is the answer. If you want to see without being seen, call your L'O·F distributor or dealer (listed under "Glass" in the Yellow Pages) or write Dept. LM-4840.

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NO SURFACE PROTECTION NEEDED



first cost is last cost

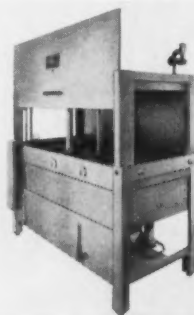
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(A DIVISION OF THE GEORGIA MARBLE COMPANY) 386 FOURTH AVE., NEW YORK 16, N.Y. DEPT. S

Conveyor Dishwasher in Compact 60-Inch Machine

Compact, two-tank units only 60 inches long are now available in the Toledo Conveyor Dishwasher series. They are designed for maximum efficiency in kitchens where



space is limited, and handle up to 4805 dishes per hour. Model 2T-P-60R has a pre-wash pump which recirculates water from the final rinse overflow. Model 2T-P-60 is equipped with a fresh water pre-wash. The Panoramic Door gives an unobstructed view of the interior and full access to all inside parts. The units are of stainless steel and corrosion-resistant construction. Toledo Scale Corp., Kitchen Machines Div., 245 Hollenbeck St., Rochester, N.Y.

For more details circle #497 on mailing card.

Removable Seat Tap Increases Faucet Life

Worn or corroded faucets and small valves with non-removable seats can be tapped for installation of long lasting Sexauer Full-Saddle Removable Seats with the Removable Seat Tap recently introduced. Made of tool steel expertly machined, the tap reams out the defective seat's inner diameter to the proper size while forming a perfect thread for screwing the removable seat in place. Taps are available in five sizes. J. A. Sexauer Mfg. Co., Inc., 2503 Third Ave., New York 51.

For more details circle #498 on mailing card.

Disposable Insert Bags for Waste Carts

A disposable six-bushel polyethylene bag for collecting waste in the Waste Mobile is

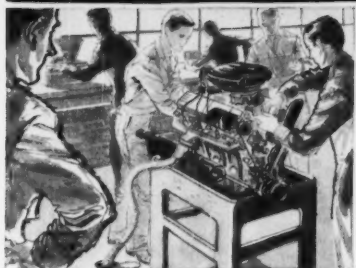


now available. The bag is discarded with its contents when filled. Time is saved in waste handling and the possibility of spreading dust and bacteria is reduced when the bags are used. Walton-March, 1592 Deerfield Rd., Highland Park, Ill.

For more details circle #499 on mailing card.

(Continued on page 206)

KEEP SICKENING EXHAUST GASES OUT OF YOUR SCHOOL SHOP



with a
**LOW COST
"PACKAGED"
EXHAUST
REMOVAL KIT**

- Easily installed
- No rearrangement
- No heat loss

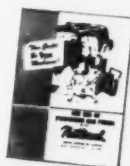
NATIONAL Systems remove poisonous carbon monoxide gas right at the source... the exhaust pipe... and carry it to the outside without heat loss in your shop. No rearrangement of your present shop layout necessary. Choice of 6 overhead or underfloor systems, which can be engineered to each individual application using standard "packaged" kits, including motor, blower, ducting, flexible tubing, etc., ready to install.

Tell your architect or write today for catalog and details of **FREE** planning service.

WORLD'S LARGEST MANUFACTURER
OF EXCLUSIVE GARAGE VENTILATION EQUIPMENT

**NATIONAL SYSTEM
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Student PROOF yet Instantly Adjustable!

PERFECT POSTURE—INSTANTLY!

- Standard School Colors
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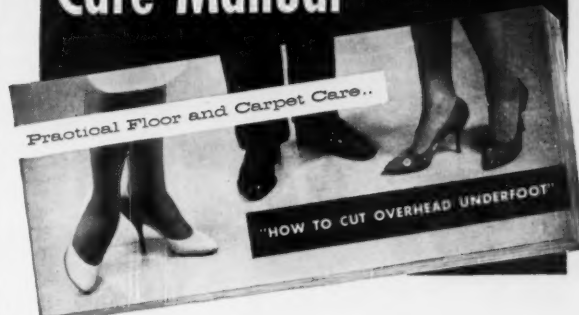
Now, lab and shop seating problems are solved with this 13 inch steel, non-swivel seat with electrically welded, tubular steel frame for rugged service. Our patented, automatic adjusting unit, adjustable from 17 to 25 inches... without moving off the stool! Complete with rubber cushioned, chrome glides in gray, green or brown (other colors on order). Write today for full information and quantity discount structure.

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FREE! New Floor and Carpet Care Manual



This colorful manual will help you solve most any floor and carpet maintenance problem. It contains illustrated, step-by-step instructions on how to clean and maintain 10 different types of the most popular hard and resilient floors. It tells how to shampoo carpets; how to select proper equipment, cleaners, waxes, and finishes; how to treat common floor failures. It also contains suggestions on floor safety, tips on floor and carpet stain removal, and explains how to set up proper job time requirements and use work planning schedules.

Send for your free copy. Mail the coupon today.

Yours for the asking from the makers of ADVANCE FLOOR MACHINES



CONVERTAMATIC

Cleans 15,000 sq. ft. of floor per hour. Lays solution, scrubs, vacuums, and dries—all in one operation.

SCRUBBING AND POLISHING MACHINES

Heavy-duty floor machines for scrubbing, polishing, steel-wooling, sanding, grinding, and carpet shampooing. Brush sizes from 12" to 24".

WET-DRY VACUUM CLEANERS

Picks up both wet and dry materials. For heavy-duty cleaning where powerful vacuuming is needed. Available in 5, 8, 12, 16, and 55 gallon sizes.

ADVANCE

TO: **ADVANCE FLOOR MACHINE CO.**

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Without cost, please send my free copy of
"How To Cut Overhead Underfoot."

Name.....Title.....

Company.....

Address.....

City.....State.....

**Plastic Laminate Wall Panel
Is Decorative and Non-Burning**



Lamidall AC is a fire-safe decorative plastic laminate wall panel for use on walls, ceilings and partitions in any area in schools, colleges, hospitals and other insti-

tutions. A hard, decorative plastic surface is integrally bonded to a base of 1/8 inch asbestos-cement board to form the non-burning laminate. Available in a variety of patterns, including authentic wood grains and marbles in four by eight and four by ten-foot standard sizes, the material is easy to apply, and matching moldings are available as finish. **Woodall Industries, Inc., 3510 Oakton St., Skokie, Ill.**

For more details circle #500 on mailing card.

**"Swivel-Action" Corridor Signs
Swing But Don't Break**

Permanent wall-mounted corridor signs that are easy to install, attractive in appearance, high in quality and low in cost are offered in the Milligan "Swivel-Action" Signs. The special mounting bracket, which

is easily attached to the wall with two screws, holds the sign frame in such a way that it folds back against the wall if struck by moving equipment, maintenance crews or malicious students. The heavy, non-rusting extruded aluminum frame and unbreakable vinyl plastic sheet which covers the lettering protect the sign from damage and

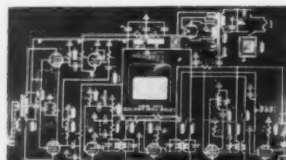


it is easily returned to its normal position. Signs are readily inserted into the sturdy frame which has simple lines and polished luster finish. Six stock models are offered in the line. **Milligan Corp., P.O. Box 10615, Pittsburgh 35, Pa.**

For more details circle #501 on mailing card.

**Classroom Demonstrator
for Electronics Instruction**

A three by five-foot circuit board, displayed blackboard style, is now available for use in teaching the basic principles of electronics, radio and television. When completely assembled, the circuits are operating radio or television receivers and super-imposed on large circuit diagrams.



Parts are connected or disconnected by a type of connecting device which requires no soldered joints. A teacher's manual provides a course of study for use with the demonstrator, and lesson material ties in with the parts and circuits being used. The material starts with elementary principles. **Transvision, Inc., New Rochelle, N.Y.**

For more details circle #502 on mailing card.

**Washable Vinyl Plastic
Forms Project-Relief Map**

The new Conbell Project-Relief Map of the United States is made of white vinyl plastic which can be marked over and over again since it is washable. Rigidly backed and self-framed, the 21 by 31 1/2-inch three-

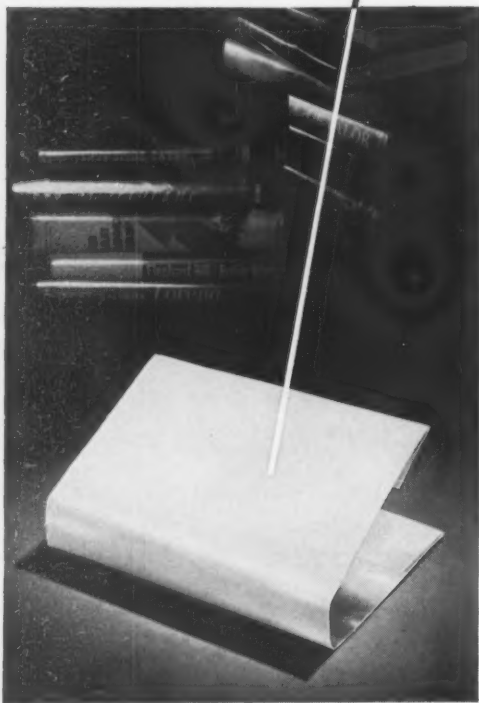


dimensional relief map is lightweight and easily hung on walls or over chalkboards. **Conbell Equipment Co., 55 Commercial Rd., Addison, Ill.**

For more details circle #503 on mailing card.

You get all these features with

**GAYLORD
BOOK JACKET
COVERS**



- * Long lasting 1 1/2 pt. Mylar*
- * Adjustable
- * Top to bottom jacket visibility
- * Handy dispenser-type package

For full book-life beauty and protection use Gaylord Jacket Covers. Heavier weight 1 1/2 pt. Mylar* (a Gaylord first) combined with a white Kraft paper liner is prefolded at bottom edge to give greater protection at point of most wear — no edge binding needed. Covers are easy to apply, only one single fold needed for a "tailor-made fit". And you need only six sizes to fit most all standard books. Handy, dispenser type packaging keeps inventory neat at all times.

For that trim, neat fit and true quality feel, give your books the protection of Gaylord Book Jacket Covers.



Send for free samples and complete information.

*DuPont trademark for its polyester film.



library
supplies

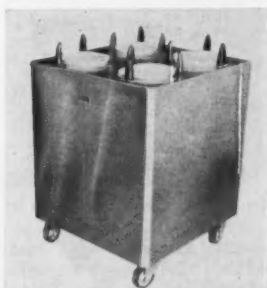
Gaylord Bros., Inc.

SYRACUSE, N.Y. STOCKTON, CALIF.

"the house of prompt, friendly, personal service"

Dish and Tray Lifters for Food Service Lines

Shelleymatic elevators raise the stacks of dishes and trays to convenient serving level in the Ideal Dish and Tray Lifters recently introduced. Designed for speedy service and convenient storage, the all stainless steel dispensers are easy to keep clean and sanitary. Precision springs automatically bring dishes or trays to conven-



ient serving position, whether for adults or children. A top adjustment ring is simply rotated to attain the desired level within coated posts which keep dishes and trays in neat stacks. To refill, dishes and trays are merely placed in position and the elevators and precision spring mechanism expand or compress in direct ratio to the load. Four swivel casters on each unit permit easy movement to place of need where they serve as stationary dispensers. Ideal Lifters are available in single, double or four-stack Dish Lifters, heated or non-heated, and in standard sized Tray Lifters. Swartzbaugh Mfg. Co., Murfreesboro, Tenn.

For more details circle #504 on mailing card.

Dust Absorber Liquid Leaves Germicidal Residue

Dust Absorber is the name given to an improved liquid for treating mops used for damp dusting. It removes dust effectively, destroying germs and depositing a residue which attacks bacteria for up to 24 hours. The solution can be used on floors, walls and furniture and is particularly effective against molds and fungi. When applied to dust cloths or mops, the liquid is non-toxic to humans, non-sensitive to the skin and odorless. Dust Absorber is particularly effective in reducing bacteria, including "athlete's foot," around locker rooms, showers and swimming pools when floors are damp dusted daily with the solution. Parlee Co., Inc., 302 E. St. Clair St., Indianapolis 7, Ind.

For more details circle #505 on mailing card.



Gray Key-Noter Secretarial Is Small High Fidelity Transcriber

High voice fidelity is built into the Gray Key-Noter Secretarial, a complete tran-

scribing instrument with one-key simplicity of operation and attractive styling. Recently introduced for use with the Gray Key-Noter Executive dictating machine, the Secretarial is transistorized, making it small and light, yet ensuring quality reproduction. Easy to use, even for a beginner, the Secretarial has fingertip dial controls and indicator lights. Any of five different colors is obtainable in the finish. The Gray Mfg. Co., Hartford 1, Conn.

For more details circle #506 on mailing card.

Integral Back Panel on Duo-Washfountain

The foot-controlled stainless steel Duo-Washfountain is now available with a back panel. An integral part of the unit, it ex-

tends the width of the bowl interior and the height of the sprayhead for attractive



appearance with efficiency. Bradley Washfountain Co., 2203 W. Michigan St., Milwaukee 1, Wis.

For more details circle #507 on mailing card.

(Continued on page 208)

LUXOUT[®]

DIM OUT or Black Out DRAPERIES

... offer your best choice of effective light control

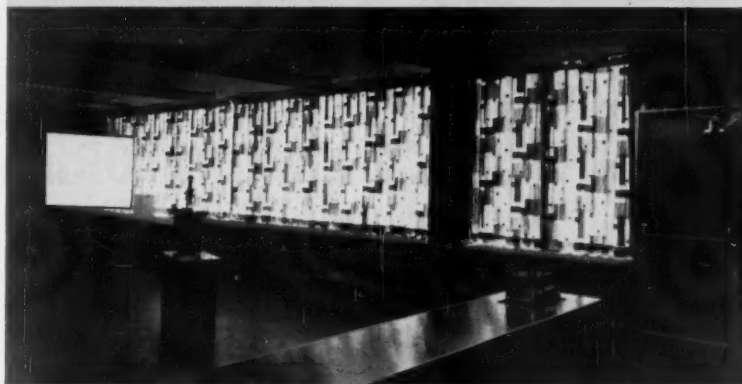


Photo above illustrates Luxout's Exclusive MASSAU DIM OUT Draperies

Classroom audio visual light control requirements differ according to circumstances. Many prefer total BLACK OUT light control; however since Luxout led the way with DIM OUT light control draperies, many architects and engineers have indicated a preference for better student rapport through the use of Luxout DIM OUT draperies. Luxout offers both types to fulfill all light control classroom TV or audio visual projection needs.

For the answer to your light control problems,
consult your Luxout Distributor or contact:

Free brochure,
DIM OUT Folder
and color samples
available upon request.

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Products**
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NEW
Lighting Development
LOW IN COST
and Indestructible
WITHOUT UNSIGHTLY GUARDS
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AUDITORIUMS
REC. ROOMS, etc.

Maximum lighting efficiency and correct distribution with our unbreakable prismatic lens bowls. Provides lighted background for objects in flight. Perforated reflector ventilates unit and filters light to ceiling. Uses either 300 or 500 watt lamp. Lamps may be changed without ladders or scaffolds by using vacuum lamp changer. EITHER CEILING MOUNTED OR PENDANT. Catalogs with distribution-coefficiency charts are available. Our representative will show samples on request.

SOLD THROUGH ALL RECOGNIZED ELECTRICAL JOBBERS IN UNITED STATES AND CANADA



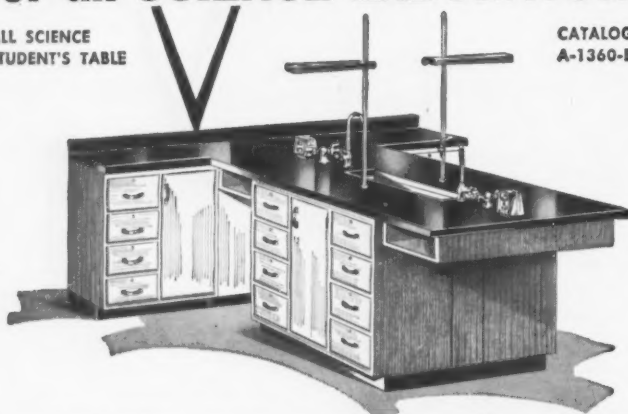
Luminous EQUIPMENT COMPANY
 Specializing in High Standard Quality Lighting Products
 1223 WEST WEBSTER AVENUE • CHICAGO 14



Quality / FURNITURE for all SCIENCE LABORATORIES

ALL SCIENCE
 STUDENT'S TABLE

CATALOG NO.
 A-1360-EC



These new perimeter type tables offer unlimited design possibilities and arrangements from standard interchangeable base units. They provide numerous advantages for new construction design as well as for use in remodeling for Chemistry, Physics, Biology and General Science laboratories. Our representative engineer will be pleased to discuss your requirements and show you the entire line of Peterson furniture that has been the choice of leading educators and industrial furniture users for more than 65 years.

Write Dept. 1226 for Brochure Number 12. It's Free.

LEONARD PETERSON & CO., INC.
 1222 FULLERTON AVENUE, CHICAGO 14, ILLINOIS

Ditto Masterfax Performs Four Functions

Four important duplicating functions can be performed on the new Ditto Masterfax. It will make Direct (Spirit) Process masters, offset masters and facsimile copies, and will also laminate. No carbon is required in typing or preparing masters as material to be duplicated is typed, written or drawn on



a clean white Masterfax sheet which is then inserted into the machine. Direct Process masters can also be made from original copy. Inexpensive facsimile copies of most original material is easily made by a dry process on any weight of paper. Laminating is done without complicated adjustments. The machine permanently covers cards, clippings and other material with a tough, protective plastic in less than a minute. Ditto, Inc., 6800 N. McCormick Blvd., Chicago 45.

For more details circle #508 on mailing card.

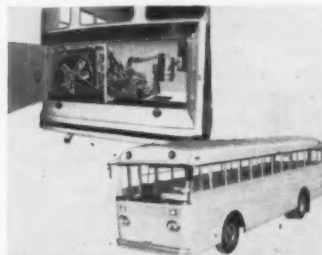
General Purpose Rectifiers for Power Supply

Designed for institutional power supplies, a new line of general purpose rectifiers is introduced by Allis-Chalmers. They are available in the 150 to 300-KW range, 350 volts DC. Requiring little maintenance, the silicon rectifiers have 95 to 96 per cent efficiency between 25 per cent and 100 per cent load, and the compact design results in a single package unit which simplifies handling and installation. Allis-Chalmers Mfg. Co., Milwaukee 1, Wis.

For more details circle #509 on mailing card.

"Pusher-Type" GMC Bus Combines Load and Safety Features

Combining the load and safety features of a transit bus, the new "pusher-type" GMC school bus is priced within the range



of most school districts. The bus will hold up to 73 passengers, yet remains within the legal limit of 35 feet. The V-6 GMC gasoline engine meets all torque requirements and the transmission is a five-speed manual shift, controlled from the driver's location by a shaft running to the gear box. The rear engine results in effective load distribution. GMC Truck & Coach Division, Pontiac, Mich.

For more details circle #510 on mailing card.

(Continued on page 210)

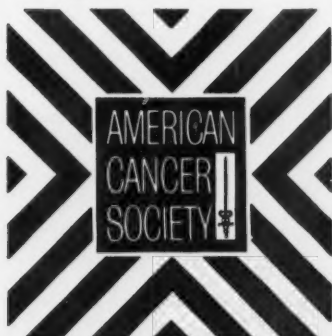
The NATION'S SCHOOLS



You can do **two things** to guard yourself against cancer: Have an annual health checkup. Alert yourself to the seven danger signals that could mean cancer:

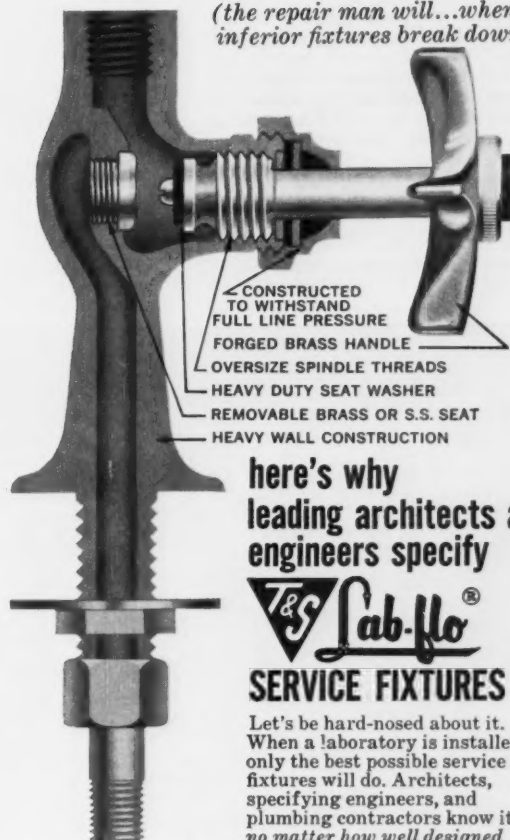
1. Unusual bleeding or discharge.
2. A lump or thickening in the breast or elsewhere.
3. A sore that does not heal.
4. Change in bowel or bladder habits.
5. Hoarseness or cough.
6. Indigestion or difficulty in swallowing.
7. Change in a wart or mole.

If your signal lasts longer than two weeks, go to your physician. Give him the chance to give you the chance of a lifetime.



LOOK "UNDER THE HOOD" of LABORATORY SERVICE FIXTURES

(the repair man will...when inferior fixtures break down)



CONSTRUCTED TO WITHSTAND FULL LINE PRESSURE
FORGED BRASS HANDLE
OVERSIZE SPINDLE THREADS
HEAVY DUTY SEAT WASHER
REMOVABLE BRASS OR S.S. SEAT
HEAVY WALL CONSTRUCTION

here's why
leading architects and
engineers specify

T&S Lab-flo®
SERVICE FIXTURES

Let's be hard-nosed about it. When a laboratory is installed, only the best possible service fixtures will do. Architects, specifying engineers, and plumbing contractors know it no matter how well designed the science equipment is, it will operate only as well as its fixtures.

It's a fact that there are important differences in fixtures used for laboratory furniture and it takes such experts to recognize them—even the busy repair man on his frequent trips to replace ordinary washers, re-grind worn seats, or to install whole new units because of stripped threads. That is why T&S Lab-Flo Service Fixtures, heavy duty engineered and constructed throughout especially for laboratory use, are preferred for wood or metal installations of any size or design. Lab-Flo is built for strength, safety, and ease of handling in the laboratory. No thin walls or shallow threads to break down, no weak parts to give out when full line pressure is applied. Look at a cross-section of a Lab-Flo fixture and you will see a cross-section of quality at its finest. You pay for quality—why not get it? You will...when you specify Lab-Flo right down the line on your next laboratory installation, new or remodeled.

THOSE IN THE KNOW SPECIFY **Lab-flo**

See your **Lab-flo** dealer or write for Catalog

SERVICE FIXTURES • HOSE COCKS
REMOTE CONTROLS • RECEPTACLES
Refer to 1960 Sweet's Catalog, Code: 27b
Tn



T & S BRASS AND BRONZE WORKS, INC.
124 MAGNOLIA AVE., WESTBURY, L.I., N.Y.
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Literature and Services

• A 20-page booklet prepared by Herman Nelson School Air Systems Division of American Air Filter Co., Inc., 215 Central Ave., Louisville 8, Ky., presents the argument for "School Air Conditioning — an important new influence in educational planning." Subjects covered include why air conditioning is important in school planning, how air conditioning for schools differs from that for other buildings, its influence on students, teachers, administrators and the community, and results of a study of the savings effected in an actual community where provision was made for air conditioning in the original school plans.

For more details circle #511 on mailing card.

• Aristocrat IV Filing Cabinets are described in Brochure LBV 743 available from Remington Rand Div. of Sperry Rand Corp., 315 Park Ave. S., New York 10. The 12-page booklet lists and illustrates the models and accessories included in the Aristocrat IV line and contains suggestions for efficient and economical filing systems.

For more details circle #512 on mailing card.

• Catalog No. 100-H contains specifications and photographs of the complete Lyon line of steel equipment for schools, colleges, hospitals and other institutions. The 92-page general catalog just released by Lyon Metal Products, Inc., Aurora, Ill., includes several new products which are illustrated for the first time.

For more details circle #513 on mailing card.

• A convenient guide on how to achieve maximum results from a microfilm system is offered by Charles Bruning Co., Inc., 1800 W. Central Rd., Mount Prospect, Ill. The illustrated booklet, "Basic Microfilm Indexing and Filing Techniques," explains methods of successful indexing and filing, discusses ways to photograph records and graphically treats other subjects, including visual and mechanical indexing aids.

For more details circle #514 on mailing card.

• The Wittenborg "400," a vending machine that can dispense anything from toothpaste to a full meal, is described in a folder, "The Major Advance in Automatic Selling," available from Wittenborg, Inc., 169 Gardner Ave., Brooklyn 37, N.Y. The "400" permits variety, making it possible to vend up to 12 selections at different prices from one machine. It will hold as many as 12 adjustable shelves which can be raised or lowered to accommodate the varied sizes of the items to be dispensed.

For more details circle #515 on mailing card.

• An illustrated brochure, available from Lawler Automatic Controls, Inc., Mt. Vernon, N.Y., contains the complete engineering story of the Recesso and tells how this recessed thermostatic shower mixing valve is designed, constructed and installed.

For more details circle #516 on mailing card.

• May is American Bicycle Month, inaugurated not only to make cycling more fun, but to make it safer. Free inspection of bicycles by local repair shops will be featured, and cyclists will receive the official rules of safe riding as well as a series of riding "tips." The program includes the principal parts of the material published in booklet form by the National Commission on Safety Education of the N.E.A. Further details are available from the Bicycle Institute of America, Inc., 122 E. 42nd St., New York 17.

For more details circle #517 on mailing card.

• "How to Reduce Painting Costs" is the title of a new 12-page illustrated guide to economical maintenance painting. Available from Barreled Sunlight Paint Co., 12 Dudley St., Providence 1, R.I., the booklet offers suggestions for savings on labor and materials, and outlines many painting economy facts.

For more details circle #518 on mailing card.

• Copies of a new training and reference book for home-making classroom use, "Drapery Hardware Selection Made Easy," are available from Kirsch Co., Sturgis, Mich. The 32-page illustrated text clearly explains the items of drapery hardware needed for every type of window and window treatment.

For more details circle #519 on mailing card.

• How "Precast Concrete Structural Members" can be engineered to fit the individual design and requirements of various type buildings is explained in a new four-page folder. The leaflet, available from Flexicore Co., Inc., 1932 E. Monument Ave., Dayton 1, Ohio, describes and illustrates specially designed concrete structural units.

For more details circle #520 on mailing card.



Blooming Prairie Jr.-Sr. High School, Blooming Prairie, Minn.
Arch: Haastick, Lundgren & Assoc., Inc., St. Paul, Minn.
Photographer: Clark Dean, Infinity, Inc., Minneapolis, Minn.

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PENNSYLVANIA SLATE PRODUCERS GUILD, INC.

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Sponsored by producers of Pyramid and Keystone American natural slate chalkboards



• "ScholarCraft — Their Future" is the title of an illustrated 8-page catalog of school furniture. The ScholarCraft line, manufactured by Southeastern Metals Co., School Furniture Div., 3925 N. 29th St., North Birmingham 7, Ala., is designed with studied simplicity and sturdily constructed to withstand severe usage while providing years of economical service.

For more details circle #521 on mailing card.

• Actual Underwriters Laboratories fire-tests and applications of a new metal and glass fire and smoke screen are shown in an eight-minute 16mm sound color film available on a free loan basis to administrators and architects for showing to groups interested in fire protection. The film, "Fire Barriers by Overly," is available from Overly Mfg. Co., Greensburg, Pa.

For more details circle #522 on mailing card.

• A 24-page illustrated booklet, "Glass in Science and Industry," is available from the Corning Glass Works, Laboratory Glassware Sales Dept., Corning, N.Y., as an educational aid for science students in high school and the first year of college. Written in non-technical language, the booklet describes how glass is made, how it is used in science and industry, and includes a section on simple classroom experiments.

For more details circle #523 on mailing card.

• "School Buses Safety Engineered to Protect America's Most Precious Cargo" is the title of a four-page folder published by The White Motor Co., 842 E. 79th St., Cleveland 1, Ohio. Specifications on the White 2000BA school bus, including data on the large brakes, husky springs and sturdy frame of the bus series which will accommodate 48, 54, 60 or 66 passengers, are presented in the folder.

For more details circle #524 on mailing card.

• Bulletin No. 685-A1 contains 16 pages of data, drawings, diagrams and charts which describe the Herman Nelson UNIVent gas-fired unit ventilator system for school classrooms. The booklet, available from American Air Filter Co., Inc., Dept. PD, 215 Central Ave., Louisville 8, Ky., also lists advantages of the ventilator, such as low cost, speed of installation and others.

For more details circle #525 on mailing card.

• How fire-rated protection for steel supporting members or metal decks is achieved by using **Armstrong Acoustical Fire Guard**, a prefabricated acoustical tile ceiling, is shown in an 18-minute, 16mm sound motion picture available on a loan basis for group showing from Armstrong Cork Co., Dept. I.S., Lancaster, Pa. The film also includes a report on Underwriters Laboratories tests made on the new ceiling to determine its fire-resistant capabilities.

For more details circle #526 on mailing card.

• A condensed four-page catalog, **Form No. 1060**, showing the complete line of **Cleveland Steam-Cooking Equipment**, including the newest steamer-kettle combinations, is available from the Cleveland Range Co., 971 E. 63rd St., Cleveland 3, Ohio.

For more detail circle #527 on mailing card.

• Administrators, planning committees and architects will find helpful data in the new **Planning Guide** available from Duralab Equipment Corp., 991 Linwood St., Brooklyn 8, N.Y. The booklet illustrates suggested room layouts and roughed-in drawings of modern science classrooms using the Duralab line, which includes furniture and equipment for Physics, Chemistry, General Science and Biology laboratories.

For more details circle #528 on mailing card.

• Edition 46 of the catalog of **Ellison Balanced Doors** is now available from Ellison Bronze Co., Inc., Jamestown, N.Y. The 12-page brochure gives specifications, drawings of construction details, and photographs of actual installations.

For more details circle #529 on mailing card.

• **Catalog F-4471-6**, an 8-page booklet on "Uni-Flo Engineered Air Distribution," is available from Barber-Colman Co., 1300 Rock St., Rockford, Ill. The booklet includes data and pictures of Barber-Colman accessories, high velocity equipment and Uni-Flo sidewall, ceiling and floor diffusers.

For more details circle #530 on mailing card.

• A colorful new catalog displaying the complete 1960 line of "Ansul Fire Extinguishing Equipment" is available from Ansul Chemical Co., Marinette, Wis. The booklet lists stationary and large capacity mobile equipment, pipe systems, and portable units featuring Ansul's new Monitor extinguisher and Sentry "Energized" series.

For more details circle #531 on mailing card.

(Continued on page 212)

Newest

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Laboratory Furniture

THE

Cramer

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DESK

Dimensions:
Top 18" x 36"
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Easy Height Adjustment

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 - Tensil-Tex
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• **Porter Gymnasium Apparatus** is the subject of a 16-page catalog available from Porter Athletic Equipment Co., Schiller Park, Ill. The full line of equipment for every gymnasium use, including the new self-closing floor anchor, is illustrated and described.

For more details circle #532 on mailing card.

• **The Bel-Art Plastic Encyclopedia** is a comprehensive catalog of plastic ware for scientific, educational and research laboratories. The 32-page booklet, available from Bel-Art Products, Pequannock, N.J., gives data on practically every type of laboratory utensil made of polyethylene, polypropylene, vinyl, acetate, Teflon, nylon and the like.

For more details circle #533 on mailing card.

• **Catalog 97** illustrates and describes the line of toilet compartments, shower stalls and hospital cubicles manufactured by Sanymetal Products Co., Inc., 1693 Urbana Rd., Cleveland 12, Ohio. The 32-page booklet includes architectural specifications; information on new types of urinal screens; a description of the new Sanyvinyl-Metal finish; details of engineering developments, and a page of chips showing the colors available.

For more details circle #534 on mailing card.

• Designs embossed in architectural porcelain enamel on steel for architectural use are pictured in a folder entitled "Sculpturama" available from Davidson Enamel Products, Inc., 1104 E. Kibby, Lima, Ohio.

For more details circle #535 on mailing card.

• An attractive 88-page catalog illustrates the line of fine wood furniture available from Thonet Industries, Inc., One Park Ave., New York 16. The furniture shown is specifically designed and engineered for use in schools, colleges, hospitals and other institutions, and includes a full line of tables, chairs, sectional units, desks, storage cabinets, stools and other items. Detailed information on the careful construction of the furniture is included in **Catalog 5801**, together with photographs of installations.

For more details circle #536 on mailing card.

• **Korok Steel Chalkboard**, which in addition to original installations can be pre-cut to fit existing frames for application over worn boards, is completely described and cataloged in a 20-page booklet available from Korok Inc., Division of Enamel Products Co., 341 Eddy Rd., Cleveland 8, Ohio. The durable, easily maintained chalkboard is available in six colors which are shown in the catalog, as are graphic details of its construction, various methods of installation and uses. Information is also given on Tac-Tex, vinyl covered tackboard available in eight colors.

For more details circle #537 on mailing card.

• The 1960-61 Edition of "**The Chemical Industry Facts Book**" is now available from the Manufacturing Chemists' Association, Inc., 1825 Connecticut Ave. N. W., Washington 9, D.C. The 164-page book is a comprehensive reference manual and has an accompanying "Teacher's Guide" prepared by Dr. Donald G. Decker and Dr. John A. Beel of Colorado State College as part of the association's Education Services.

For more details circle #538 on mailing card.

• How Armstrong's new fire protective acoustical ceiling tile, Acoustical Fire Guard, saves time and money in institutional construction where rated fire protection is required is the subject of discussion in a new 12-page booklet available from Armstrong Cork Co., Lancaster, Pa. Entitled "**The First Acoustical Ceiling Tile to Offer Rated Fire Protection**," the booklet specifically cites time saved in school construction when Acoustical Fire Guard is used and uses case histories to prove the points mentioned.

For more details circle #539 on mailing card.

• **Celtex Light Control Draperies** for audio-visual use are described, with architectural specifications, in a folder issued by Colonial Plastics Co., 108 S. Foushee St., Richmond, Va. The leaflet lists the various styles and degrees of light control in which the fire-safe drapery is available.

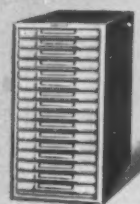
For more details circle #540 on mailing card.

• An educational kit on the motion picture, "**Solomon and Sheba**," is available to schools from United Artists, 729 Seventh Ave., New York 19. Included are a 54-frame color filmstrip telling the story of the film, a four-color map of the Land of Solomon and Sheba, a specially prepared brochure which documents the making of a film and details the jobs behind the scenes, a Photoplay Study Guide, and a four-page research bibliography.

For more details circle #541 on mailing card.



Acme Visible School Record Systems SIMPLIFY RECORD HANDLING TO KEEP PACE WITH RECORD ENROLLMENTS



ACME TRAY CABINETS
Versatile file controls individual pupil records.



COMPACT CLASS RECORDS
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Grades, enrollment, vital statistics at a glance.



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Easy to read cards for all school records and needs.

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For instance, now on just one Acme Visible record card, a student's complete school record! Background, grades, test results, even attendance . . . available at a glance. No need for a half-dozen different cards requiring duplication of entries and a waste of teaching time.

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• A free holiday in Europe, plus cash for expenses, may be won by a teacher submitting the best report or essay on "How Audio-Visual Aids Make Teaching and Learning Easier." An all-expense paid trip to the 1961 Miami DAVI convention will go to the winner's A-V Director and the school district will receive gifts of Viewlex projectors. Prizes to other winning entries include U.S. Savings Bonds to the teachers and Viewlex projectors to their school districts. Full information is available from Viewlex, Inc., 35-01 Queens Blvd., Long Island City 1, N.Y.

For more details circle #542 on mailing card.

• The line of fire alarm systems manufactured for schools, hospitals and other institutions by the Standard Electric Time Co., 89 Logan St., Springfield, Mass., is covered in a new 36-page two-color catalog which includes information on the company's "March Time," master coded and box coded systems. Components and accessory equipment are illustrated and described, and typical job specifications are mentioned in the catalog.

For more details circle #543 on mailing card.

• Multi-Person type shower baths are described and illustrated in an eight-page bulletin available from Bradley Washfountain Co., 2203 W. Michigan St., Milwaukee 1, Wis. How "Bradley Group Showers" serve as many as five persons from one set of plumbing connections is discussed, with details of the basic Shower Column in three heights, and floor plan suggestions.

For more details circle #544 on mailing card.

• Catalog #60, covering food service equipment manufactured by Caddy Corp. of America, Secaucus, N.J., is now available. It includes data on such newly developed mobile units as the Wet Tray Caddy T-222, the Nylon "DB" Belt Caddy-veyor for large-scale dish, tray and rack transfer, and other items.

For more details circle #545 on mailing card.

• Packaged Cooling for water coolers, a separate, inside cabinet housing the entire refrigeration system, is used in the line of water coolers described in a new four-page folder issued by Sunroc Corp., Div. PCL, Glen Riddle, Pa. A variety of models, including free-standing, wall-hung, flush-to-wall and remote, is described in the folder.

For more details circle #546 on mailing card.

• The comprehensive 1960 Educational Motion Pictures Catalog of films available through the Audio-Visual Center, Indiana University, Bloomington, Ind., is now available. The 664-page book lists approximately 6000 films of cultural, social and educational value, recommended for use from nursery school through college and adult levels.

For more details circle #547 on mailing card.

Film Releases

"The Drama of Metal Forming," 16mm color film made inside a steel mill, 28 min. Shell Oil Co., 50 W. 50th St., New York 20.

For more details circle #548 on mailing card.

(Continued on page 216)

YOU TEACH ELECTRONICS FASTER, EASIER

WITH EICO KITS

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- LIFETIME service guarantee at nominal cost
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EICO KITS are top-quality professional TV/radio/electronic test instruments, hi-fi components, & amateur radio gear and transistor radios — embody latest performance-proven design and circuitry. Complete with all parts, pre-punched chassis, deep-etched aluminum panel, rugged steel case — plus pictorial diagrams; schematics; data on color codes, soldering, tools. "Beginner-Tested" step-by-step instructions help the student learn by "doing it himself" — quicken his familiarity with the construction, operation and maintenance of electronic equipment.

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Simulates EICO #221 VTVM in all its functions and ranges. Helps you teach the use and reading of the VTVM with giant 13" meter scale. 14 3/4" wide x 23" high x 3 1/2" deep. Easily viewed by complete class. Punched holes for easy hanging. Steel cabinet, aluminum panel.

FREE ELECTRONICS WALL CHART of official IRE-EIA symbols. Ideal for classroom instruction. NS-4
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*turn \$18⁷⁵ into \$25⁰⁰
fourteen months quicker
than ever before*



**YOUR MONEY GROWS 33 $\frac{1}{3}$ %
IN JUST 7 YEARS AND 9 MONTHS
WITH NEW SERIES E BONDS**

Here are three new reasons why today's Savings Bonds are the best ones in history:

1. Every Bond bought since June 1, 1959, earns 3 $\frac{3}{4}$ % interest when held the full term. Series E Bonds now mature in 7 years, 9 months—fourteen months faster than ever before.
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with U.S. Savings Bonds**

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Montgomery

SYNCHRONOUS

PROGRAM CLOCKS

These two factors, in city after city, are dictating the replacement of complex, elaborate, high maintenance systems with dependable Montgomery Synchronous Program Clocks. Investigate! Ask your school supply dealer or write for details.



ONE AND TWO CIRCUIT

Activates 1 or 2 circuits on pre-arranged schedules. 12 or 24 hour models. Signals from 2 to 25 seconds duration. Automatic calendar switch. Set by turning clock hands; perfect synchronization. Push buttons do not disturb automatic operation. Easily installed.



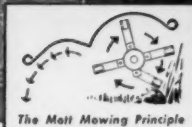
NEW! MULTI-CIRCUIT

Operates up to 5 separate schedules on 1 to 5 groups of signals. 12 or 24 hour models. Signals from 2 to 25 seconds duration. Calendar switch regulates operation. Program mechanism and clock movements perfectly synchronized; set simply by turning clock hands. Pushbuttons do not disturb automatic operation.

MONTGOMERY MFG. CO.
OWENSVILLE, INDIANA

SAFE MOWING

...even when children are present!



In MOTT—there's no danger of flying sticks, stones, and other debris. It's safe! The downward cutting action of the free-swinging flail-type blades and the shape of the hood deflect the clippings to the ground . . . not so much as a blade of grass is tossed sideways!

From 18" to 19 ft. gangs—there's a MOTT mower for any mowing job.

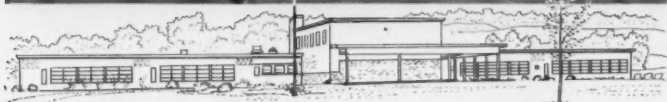
NOTE: Before you buy—see a MOTT demonstration!



MOTT CORPORATION

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Claridge Chalkboard & CORK Bulletins



Enfield Elementary School, Enfield, N. Y.

Architect: Richard Metzger, Ithaca, N. Y.

QUALITY...PERMANENCY at LOW COST! Claridge continues to modernize and improve chalkboard and bulletin board manufacturing in step with new educational demands. 36 years experience concentrated on ONE purpose: the **FINEST** chalkboards and bulletin boards with greatest educational value. Schools and architects around the world name CLARIDGE to define their standard of quality.

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Larger, many real colors, more detail to help you solve replacement, remodeling, or new building problems. You'll find much helpful information.



Claridge PRODUCTS and Equipment Inc.
HARRISON, ARKANSAS

☐ Please send catalog 140 ☐ Send samples or additional data on items circled below:

- | | |
|---|--|
| 1 Duracite Chalkboards in Seven Colors | 9 Claridge Factory Built Chalkboards and Bulletin Boards |
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| 3 Grapholite Sliding Chalkboards | 11 Vertical Sliding Chalkboards |
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"Life of Lincoln," 20-frame color filmstrip with actual color photographs of the Lincoln Dioramas of the Chicago Historical Society, with guide by Sarajane Wells, for social studies, grades four and up. Society For Visual Education, Inc., 1345 Diversey Pkwy., Chicago 14. For more details circle #550 on mailing card.

"Automotive Electrical Fundamentals," five color filmstrips with synchronized recordings for Driver Education Classes and Automotive Mechanics, including "Introducing Automotive Electricity," "The Cranking Circuit," "The Ignition Circuit," "The Regulation and Charging Circuit" and "The Lighting and Accessory Circuits." "The St. Lawrence Seaway," three color filmstrips for later elementary, junior and senior high social studies, including "Historical Background," "Seaway Travel" and "The Seaway Power Project." The Jam Handy Organization, 2821 E. Grand Blvd., Detroit 11, Mich. For more details circle #551 on mailing card.

Suppliers' News

Marmon-Herrington Co., Inc., Indianapolis, Ind., announces acquisition of the Oneida school bus body business of Henney Motor Company, Division of Eureka Williams Corp. The business includes the complete line of school bus bodies for mounting on conventional, forward-control, and rear engine chassis of all important truck manufacturers. Manufacture will be transferred from the plant in Canastota, New York, to the Marmon-Herrington plant in Indianapolis, Ind.

The Nord Photocopy & Business Equipment Corp., 300 Denton Ave., New Hyde Park, L.I., N.Y., announces the acquisition of Television Utilities Corp., Corona, N.Y., engaged in research, development and manufacture of specialized electronic equipment.

Society For Visual Education, Inc., 1345 Diversey Pkwy., Chicago 14, announces its appointment as exclusive school distributor for Great Art Prints by Abrams, Inc. of New York, art publisher. The Great Art Prints collection includes carefully lithographed reproductions in full color which are moderately priced for display and classroom study. Prints of paintings by artists from primitives to modern are included in the collection.

L. Sonneborn Sons, Inc., 404 Fourth Ave., New York 10, manufacturer of building and maintenance specialties, lubricants and chemicals, announces change of corporate name to Sonneborn Chemical & Refining Corporation. A new company-developed symbol will also be used on all corporate material of the company.

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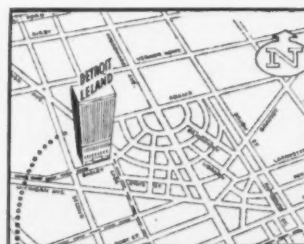
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Products described in the "What's New" pages of this magazine also have key numbers which appear in each instance following the description of the item. For more information about these items, circle the appropriate numbers on the postcard and mail it, without postage, to The Nation's Schools.

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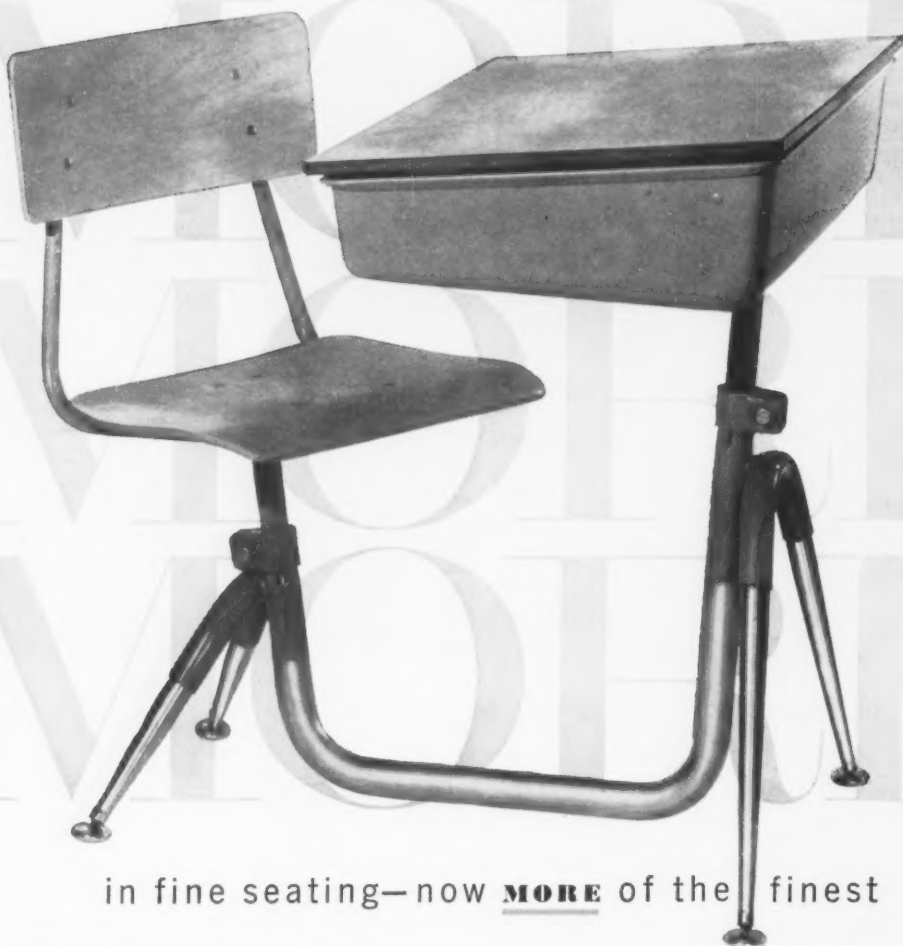


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